





Commercial **ART**



by

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TO
MARY ALMEDA AND BARBARA ANN

PREFACE

It is the desire of the author that this book will be of assistance, not only to the Art Student in solving the many problems which confront him when entering the field of COMMERCIAL ART, but that it will be of equal value to all those who are buyers of Commercial Art, advertising, advertising printing, engraving and color reproduction. This is not a book dealing with the elements of drawing nor is it a treatise on "how to draw," except as applied to the technique and procedure used for reproductive purposes. Many excellent books are available treating of the subjects of elementary drawing, perspective, composition, lettering, advertising, etc., but the number of practical books on the essentials of COMMERCIAL ART, or drawing for reproduction, are very limited.

The need for a practical book on this subject has been keenly felt during the many years the author has spent in this profession. This need is further evidenced by contact with the younger members of his staff with their problems, and the increasing number of Art Students who visit his studio yearly seeking practical information, which was not available in books that they already possessed.

The author has attempted to explain fully and in detail the fundamental principles of drawing for

PREFACE

reproduction, how to sell, and the many time-saving methods that may be used successfully. He assumes that the reader has received, or is now receiving, art instruction, and now wishes to gain the additional knowledge necessary to successfully enter the profession.

His sincere appreciation is acknowledged to the members of his staff, and to many friends, for their valuable assistance in this work.

G. F. C.

Dallas, 1930.

CONTENTS

PART	PAGE
I. COMMERCIAL ART AS A PROFESSION	3
II. THE CUSTOMER'S VIEWPOINT; YOUR PROFIT	21
III. SELLING YOUR ART THROUGH PROPER PRESENTA- TION	31
IV. ANALYZE YOUR PROBLEM FOR A DEFINITE PUR- POSE	43
V. LAYOUT AND ITS IMPORTANCE	59
VI. SUITABLE TECHNIQUE FOR A DEFINITE PURPOSE	71
VII. HAND LETTERING AND ITS VALUE	101
VIII. BEN DAY SHADING PROCESS	107
IX. COMMERCIAL ENGRAVINGS; THE LINE ETCHING AND HALF-TONE	117
X. DRAWING FOR COLOR REPRODUCTION	137
GLOSSARY OF WORDS AND TERMS USED IN THE PHOTO-ENGRAVING BUSINESS	172

Commercial
ART

PART I
Commercial
ART as a
Profession

In this age of intensive advertising the properly qualified and sincere art student could hardly hope to find a more pleasant occupation or profession than that of commercial art. In magazines, newspapers, direct-by-mail campaigns, or in almost any media wherein the printed word is used there will be found a picture. A picture in a few lines will tell a story that would require many pages of the printed word. Visualizing the message in part, the picture punctuates and emphasizes, creating an atmosphere at a glance. Pictures are the universal language, and constitute a field of almost unlimited expression.

Commercial art offers an opportunity to the enterprising art student to capitalize his talent to its fullest extent. Because he is drawing or painting commercially should not hinder him in his ability to express himself on paper or canvas. Moreover, the elements of commercialism, when recognized and adhered to, will prove a constructive agent in his development as an artist. The standard of quality and usefulness of his work is not measured through its artistry alone, but demands many other equally important factors. Years of actual experience alone can give the student a clear conception of his responsibilities.

COMMERCIAL ART

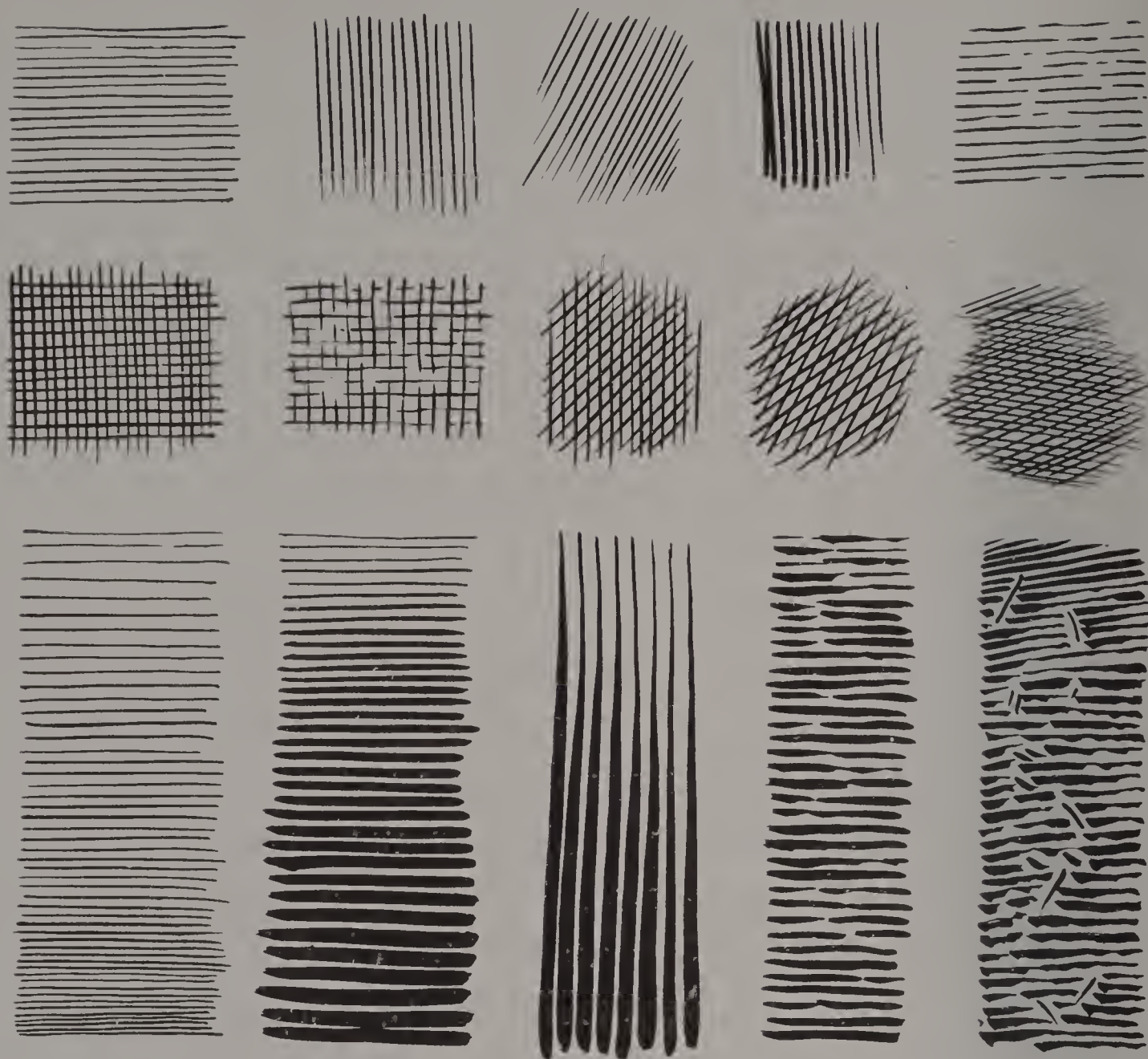


FIG. 1. PEN AND BRUSH LINES.

The basis of illustration for commercial use, especially in newspapers, is the line. The importance of properly made lines cannot be impressed too strongly upon the student.

Above are shown several treatments of the line for tone and texture. Many artists choose to use a small fine pointed brush as a substitute for the pen. The brush, when used successfully in this manner, affords a very free technique. It permits strokes of varying size with only a slight pressure. The student will find the brush very valuable when a "sketchy" result is required.

In any event the line whether made with a pen or brush must be strong in color, as weak uncertain lines do not reproduce satisfactorily.

COMMERCIAL ART AS A PROFESSION

Commercial art, successfully applied, is a serious business. It deals not only with the making of pictures, but in most cases is the handmaiden to salesmanship. It is necessary that the student make an exhaustive study of many elements foreign to art in order that his efforts measure up to the expectation of his customer. Do not feel discouraged upon discovering the myriads of details to be coped with, for you will find it, undoubtedly, a most interesting experience.

In this treatise let it be understood that it is not the intention of the writer to undertake the teaching of art, but rather to augment such instruction as the student is now receiving, or has received, with the solution of many of the perplexing problems that arise when working commercially. The greatest difficulty you will encounter in drawing commercially is that of reproduction. By reproduction is meant the mechanical process through which your drawing must pass before it finally becomes the printed picture. The different stages, when properly planned and executed, fit together perfectly, but one misstep invariably leads to unsatisfactory results.

Different kinds of printing papers require certain types of engraving, and the mechanical limitations to be forever reckoned with demand a thorough knowledge of the subject. However, the inventive genius of the artist will allow him great latitude in his work, once he understands the process. There are many lessons to be learned regarding reproduction that can

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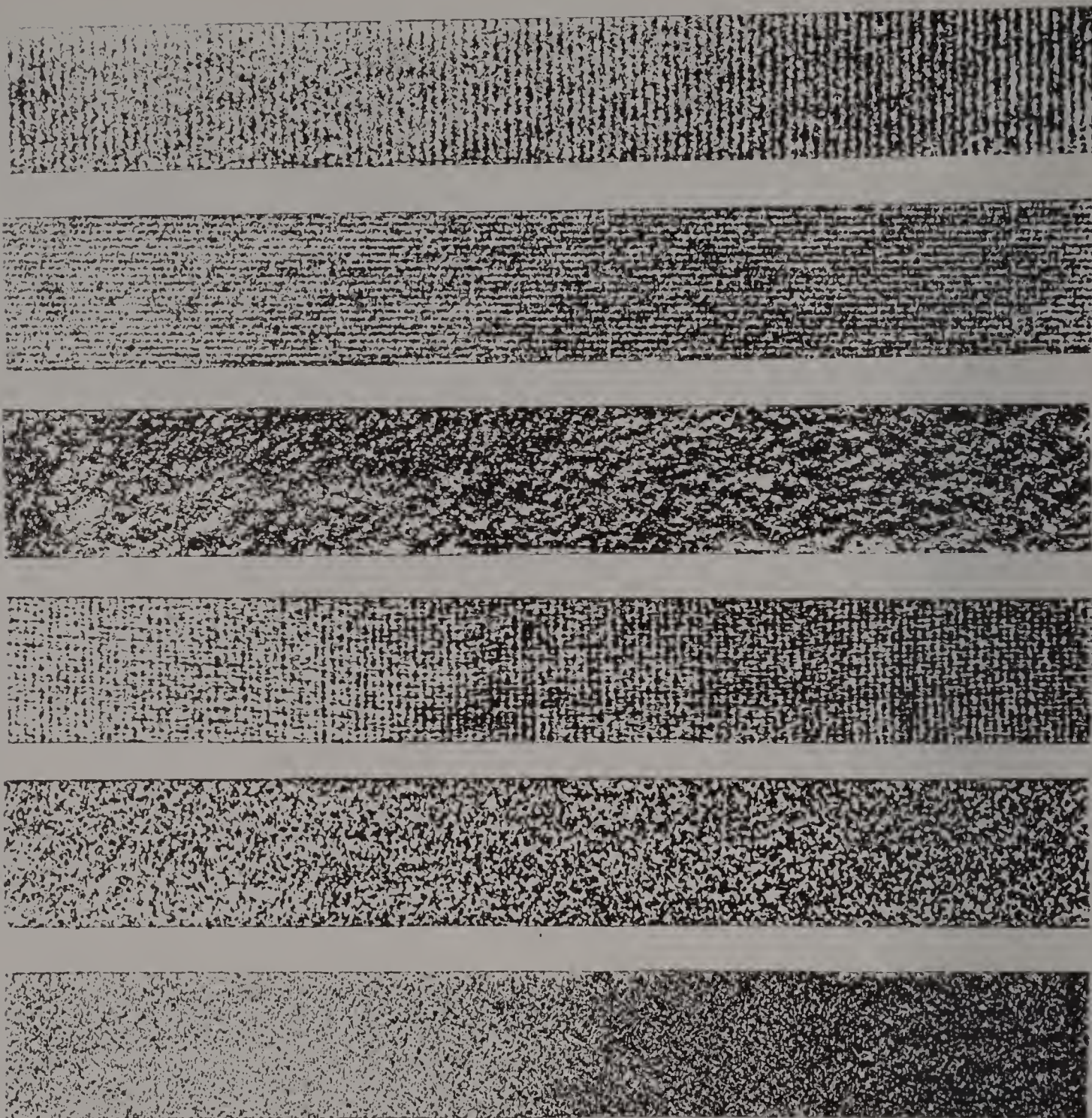


FIG. 2. CRAYON ON VARIOUS PAPER SURFACES.

The above chart shows the grease crayon or lithographic crayon on papers of different textures. The success of etching this type of work rests almost wholly with the paper upon which the work is done. Very rough papers permit great reduction while others not so rough allow less. In working in this medium, a paper must be used that has a texture, to allow contrast of white against black. Try the grease crayon on various papers and note the result. Remember, your drawing must be pure black with no weak grey tones.

COMMERCIAL ART AS A PROFESSION

be taught only through experience and it is well to heed them and profit by them.

It is suggested that the student visit in person if possible an engraving plant, a printing establishment, and a newspaper press room and see for himself why this seemingly unimportant detail of reproduction is the prime factor in his success. In the first place, there are many media in which you may render your drawings, and you may select the one best adapted to the subject in hand, but if you have failed to take into consideration the further steps of reproduction your drawing as a finished product may be a total failure.

A commercial drawing, it must be remembered, is but a means to an end. Its purpose is not for it to be framed and exhibited, but rather it is a unit in most cases among other units made up of type, ink, paper and press work, all of which must be in perfect harmony with each other, to permit of best results. There are times when a customer, through ignorance of these facts, will insist upon a specified style and type of drawing, and, upon endeavoring to use it in the manner he intended, will meet with failure in the final result. It is the duty of the commercial artist in cases of this kind to be prepared to show him wherein he is wrong, and at the same time to recommend the correct procedure.

If you were commissioned to draw or paint a picture for exhibition purposes only, and the reproductive qualities were not to be considered, then the customer

COMMERCIAL ART



FIG. 3. DRY BRUSH.

Dry brush is related to both pen and crayon, allows solids with gradation, by use of brush, not too heavily charged with ink, so that in passing the brush over the rough paper, its ink stains the highpoints without covering the entire surface. Dry brush properly made is an ideal medium for reproduction of the etching, as it is strong and forceful, even after reduction, due to the employment of solids and strong highlights. Work for masses and values rather than for fine detail.

COMMERCIAL ART AS A PROFESSION

viewing the finished product would be thoroughly capable of judging its successful rendition, but in commercial work you will find that a large percentage of your customers have no conception of reproductive processes, and must be carefully guarded against their own errors due to lack of familiarity with such details. If you do not adhere to this rule you will find that it works greatly to your disadvantage, as you may readily see and understand.

In the production of commercial art many individuals and mechanical processes must be taken into consideration. The artist must bear in mind the viewpoint of the reader, the requirements of the customers and the mechanical limitation of the printing and engraving processes, and last but not least by any means is the element of time given the artist to produce his work.

If you, as an artist, decided to paint a picture of some subject that had inspired you, and would set about with a will to do it, but after you had started and some element of interference presented itself you might lay aside your picture partially finished and pick it up at some later time when you were again inspired. Not so in commercial art. For some unknown reason most illustrations used commercially are ordered from the artist at the eleventh hour, and one of the common phrases that every customer buying commercial art seems to know is, "I want this just as soon as possible." At the same time he expects the very

COMMERCIAL ART

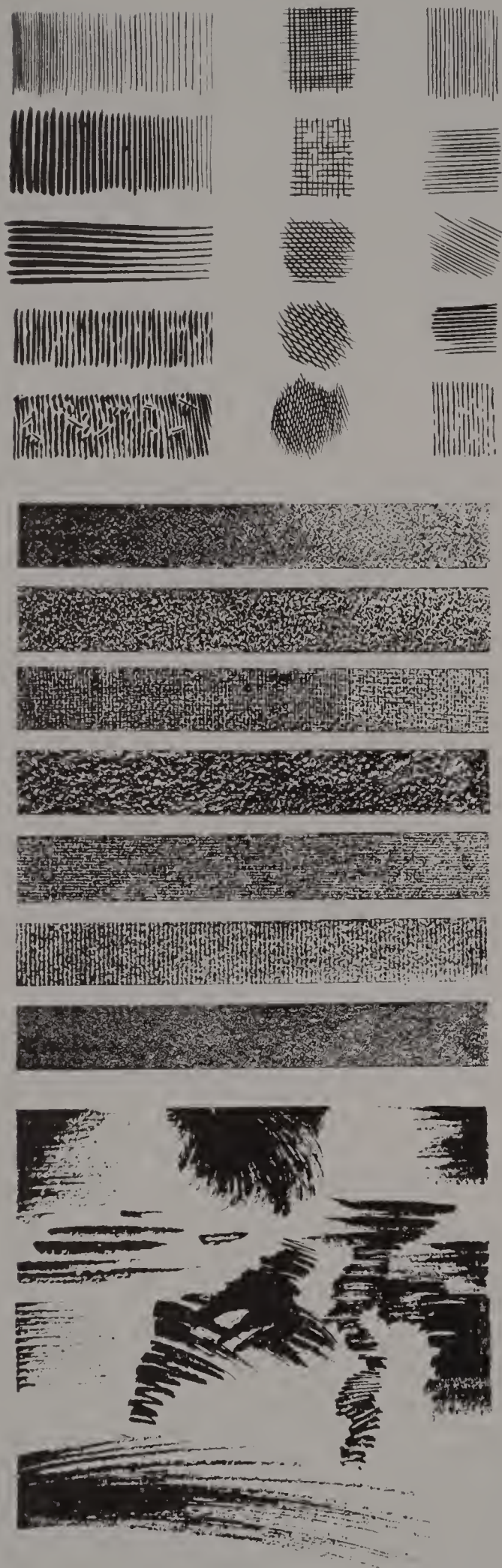


FIG. 4. ILLUSTRATING CHARTS 1, 2, 3, REDUCED ONE HALF.

Showing the effect of more than one-half reduction of Charts 1, 2 and 3. Notice how, in Chart 1, some of the specimens have a tendency to fill up, due to insufficient white space between lines, while others stand reduction without serious effect. Chart 2, that of crayon on rough paper, is most sensitive in great reductions, when made on too fine grained paper, while the drawings made on coarse paper hold their tones perfectly. Note some spaces entirely filled due to this too great reduction. Chart 3 shows the effect of the dry brush technique. While the dry brush is affected very much the same as crayon and depends largely upon the texture of the paper, yet due to its positive black-and-white effect usually it yields to a much better reduction than crayon. This may be due to the fact that the medium of dry brush is worked more in strong contrasts with very little effort at middle tones. Middle tones are the ones that cause trouble in reduction.

COMMERCIAL ART AS A PROFESSION



FIG. 5. MINIATURE ROUGHS.

Make your first preliminary drawings on a small scale; they require less time and the limited space does not tempt the employment of detail. Miniature roughs assist in studying general form and arrangement of the units of the advertisement. They will help you to perfect balance, proportion, and to clarify the general procedure. Each of the four miniature roughs shown above was the first step toward visualizing a full-page newspaper layout. The size reproduced above is the actual size of the original sketch.

COMMERCIAL ART

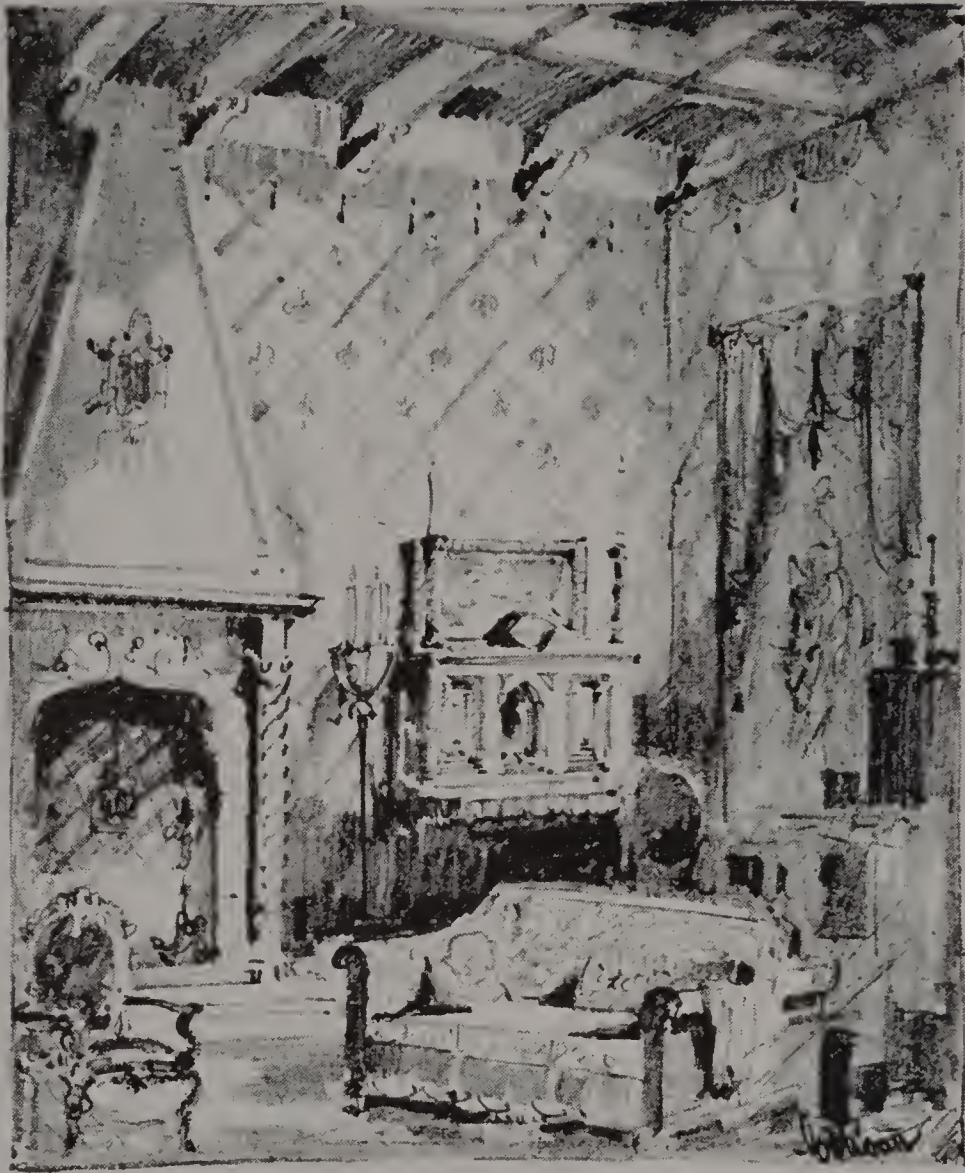


FIG. 6. FINISHED ROUGH.

After the miniature rough has been completed and the location of each unit of the advertisement decided upon, it is next in order to turn your attention to the detail of the units themselves and prepare what is known as a "finished rough." Above is shown a "finished rough" of an illustration. In this the location of furniture and fixtures is arranged with an idea of composition, taking into consideration highlights and shadows. A certain amount of detail should be employed, yet masses are still to be kept well in mind. A "finished rough" of the above type is usually sufficient to submit to the customer as a preliminary to the finished drawing.

COMMERCIAL ART AS A PROFESSION

best work you can produce. Remember, he is a commercial man; he is not familiar with any artists' moods, for to him they seem to be quite unnecessary. Therefore, one of the first things the artist working commercially must do is to attune his temperament to his routine duties. After all, there is a logical reason for this rush, for your customer, after deciding that through the use of your product he can increase his sales or accomplish his purpose, is very anxious to reap such benefit as he may expect at the very earliest possible moment. Again, your work may be a part of an advertisement that will appear in an edition of some newspaper or magazine which demands that the work be in the hands of the printer at a certain date in order that the edition will not be delayed. There are many reasons why the advertiser should demand from you what may seem to you to be an impossibility, but after all, remember you are working commercially; you must be a part of the machine, so to speak, that will sell his goods. You are a cog in the wheel, and you must not fail your customer if you expect to serve him further. Give him the best you have. Enter into the thing as you would into a game.

Show spirit, enthusiasm and never impatience, for when you allow yourself to become impatient you are doing yourself a great wrong. You may really reap a benefit in cases requiring haste for it will teach you to work fast and think fast, and speed combined with skill makes for a better quality of work. Don't misunder-

COMMERCIAL ART



FIG. 7. COMBINATION OF FREE LINE AND STRAIGHT LINE.

Combining the straight line with the free line coincident with the subject. The vertical line being the accent in this building, it is aided and emphasized by the use of the free line in the sky. The heavy horizontal line of the busy street also adds to the vertical feeling of the building. Further height is attained by the open-sky effect back of the tower, allowing it to reach up without interference. Notice how the drawing suggests a straight border treatment on all four sides and seems to be enclosed within a rectangle, yet it has no border lines, but on the contrary has a greater amount of white space than it does black definition.

COMMERCIAL ART AS A PROFESSION

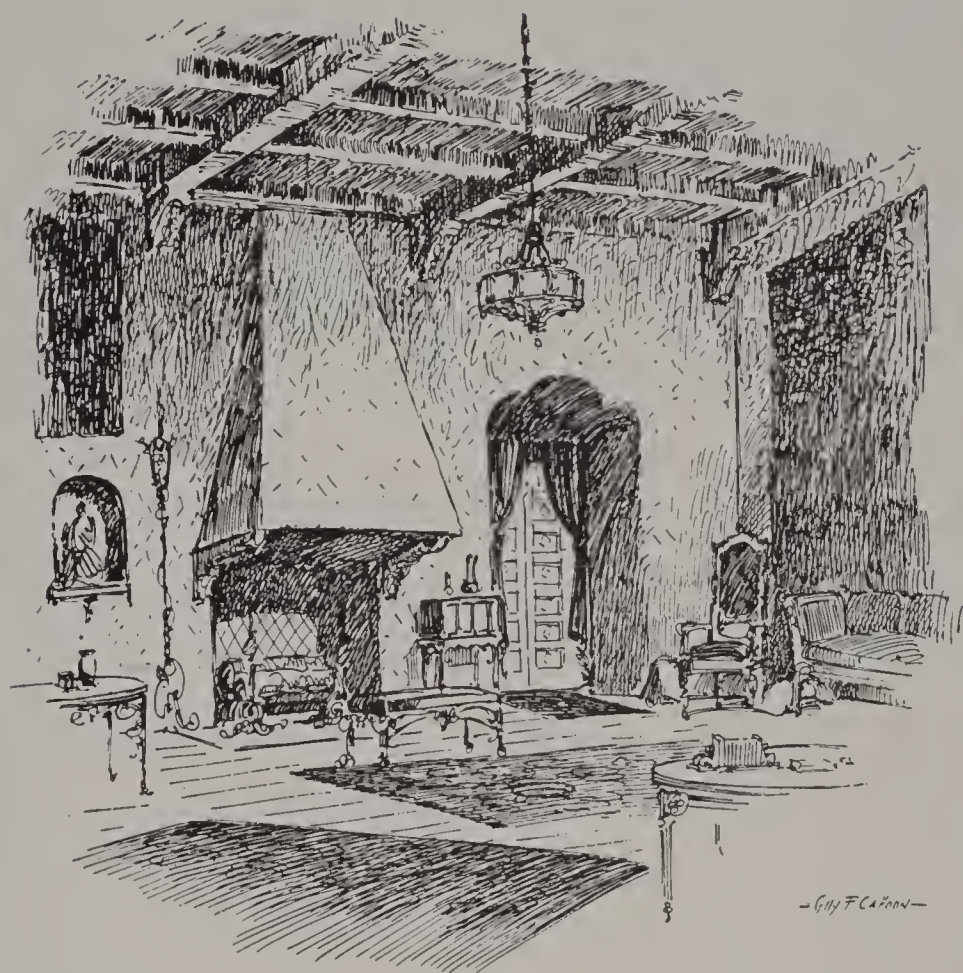


FIG. 8. BALANCE.

Notice the informal balance of the fireplace, hanging light fixtures, doorway and chest. This group is emphasized by a general highlight surrounded by various other darker objects of the room forming a boundary for the sketch.

Rendered in pen with free lines of comparatively equal size but of varied arrangement and direction.

COMMERCIAL ART

stand the term "speed"; this does not mean hurry. Speed as applied in drawing pictures means the elimination of all unnecessary motion. It means that you must know what you are going to draw and then draw it with the least possible effort, but "hurry" means that you become flustered, and no matter how long you work on the picture it will never be what it should be. Speed and quality can be obtained only by absolute concentration upon the subject in hand. There is no time to putter about and peck around for the inspiration. The artist will learn to quicken his mind, shorten his methods, make quick decisions and in this way allow himself the greatest possible length of time for any necessary painstaking details that should be accomplished in a careful manner. The writer, out of his practice, wishes to assure you that the nerve-racking strain of doing what seems to be the impossible in the short length of time allowed, affords upon the completion of the task one of the great thrills to be enjoyed, and one of the finest confidence-building agents possible. The next task you undertake will seem to be easier. Try it for yourself and see if it is not a fact. You will do it more easily and in a shorter length of time. There is something of the nature of a game well played that one experiences upon delivering the completed piece of work at the specified time, or before. It makes no difference whether the customer appreciates the fact that you have put forth every effort possible; you can rest assured, however, that he

COMMERCIAL ART AS A PROFESSION

does appreciate the fact that you have delivered it to him on time and have not slighted it in the least. You may reasonably expect to receive his next piece of work as a result of your promptness.

Bear in mind that sometimes your customer waiting for some very insignificant piece of work that you are doing will be inconvenienced to the extent that his entire advertising campaign will be interfered with if you are late in your delivery. Customers do not relish this sort of treatment.

After all, in the final analysis the difference between art and commercial art is very simple. In fine art you draw what you choose and draw it in the manner most acceptable to you, but in commercial art you must choose what is acceptable to the customer and the public and draw it in a manner which will reproduce to its best advantage in the publication in which it is to appear. This may seem to you to be a great handicap in expressing yourself, but after a time when you have acquainted yourself with the so-called implements and tools of the profession you will, with no apparent effort, be able to adjust yourself to the requirements and find the same joy of expression in your work.

PART II
The Customer's
Viewpoint ∴ ∴
Your Profit

Always remember that the customer must be pleased. He is the purchaser of your art. Without the customer you cannot be a commercial artist. Bear this in mind. The customer must be reckoned with in more ways than one. At the same time his likes and dislikes and seemingly unreasonable requirements will discourage you beyond words if you refuse to accept commercialism as a factor in your work. By the term "commercialism" is not necessarily meant mercenary desire, yet it is a factor to be kept in view. It means that you must accept the ideas of the world of commerce and incorporate them into your drawings. Your customer is not an artist, and does not have the viewpoint of an artist. If he were, you would not be drawing pictures for him. He is a business man, a merchant, a manufacturer, a jobber or salesman. Give him credit for knowing his business as you know yours, or even better.

Now this customer has come to you with a specific idea in his mind as to what he wants. It is true that many times his idea will be very vague. It is your business to assist him in working out the details, formulating a complete picture. You must try to work with him, try to understand his problem and the thought which he wishes to illustrate. As a preliminary it is far better in most cases to find out what thought he wishes illustrated, why he wants it done and how it will finally be used, rather than ask him to try to give

COMMERCIAL ART



FIG. 9. THE FREE STROKE.

The police dog as a subject illustrates the use of a free stroke of varying size, very loosely handled. This technique is well suited to the subject due to the texture of his coat. Rather than a hard outline of a single stroke you will notice the combination of many fine lines. Danger of overworking a drawing in a subject of this sort is great; strong highlights and heavy shadows should prevail with the feel of the hairy texture outstanding in both. This is an example where the filling up between lines, to form a solid, is an advantage rather than a calamity, as it provides a solid or near solid with depth and tone.

THE CUSTOMER'S VIEWPOINT

you an outline of the picture itself. School yourself to think in his realm, take the responsibility on your shoulders for the part that you will play in the successful sale of his product. Think how you would present this problem to your customer if it were yours. Forget for the moment that you are a commercial artist. Study the situation. Talk to your customer and listen to him. Be a better listener than talker. You will be of more value to your customer. You will find that close attention to his requirements will develop an idea in your mind. Be sure that the idea is clear and practical before you present it to him. If it is too impractical he will lose confidence in your ability to help him and will forever be skeptical of other ideas you may present, no matter how much better they may be. Don't be afraid to criticize your own ideas. Remember; ideas are both good and bad and the larger percentage of ideas that come will not stand the test. Good practical ideas have a habit of inspiring the artist to such an extent that he immediately realizes that he has "hit the nail on the head," so to speak. Your customer will be the best judge of whether an idea is right or wrong and you must respect his judgment. Too many times the customer will order a drawing made, without indicating to the artist for what purpose he intends to use it. His idea and explanation of what he wants may be so clear that the artist feels it unnecessary to go into the details further for the completion of the drawing. The drawing when completed may be

COMMERCIAL ART



FIG. 10. OUTLINING, BY USE OF FREE-HAND STRAIGHT LINE.

The above illustration demonstrates the use of the free-hand straight line used as a means of outlining, in the most part, rather than modeling the subject. This open-line treatment affords good reproductive possibilities. Also, in this example is shown how a subject may be treated to draw the attention directly to one spot, allowing the outer margins of the picture to "slip off" into atmosphere.

THE CUSTOMER'S VIEWPOINT

without fault. It is well drawn, well balanced and apparently satisfactory in itself. Then it is taken out of your hands and incorporated within a layout of type, border, signatures and other units of which you had no knowledge, and the ultimate result of the completed layout as an advertisement may be very disappointing to the customer because of the lack of unity and balance. If you had known in the beginning what use he intended for the drawing you most probably would have handled the situation in a different way, thereby rendering a service to your customer and to yourself at the same time. Regardless of why your drawing does not measure up to the given standard, you as the artist usually will have to bear the brunt of the blame. Consequently it is always very important that the artist should have at least some conception of the use to which his work will be put in order that he may more closely work with his customer. Only many years of constant contact with the art-buying public will impress upon you that a commercial drawing is only a means to an end. It is but one of the many elements that go to make up a successful print job or advertisement and must be made with that fact in view. Your customer must be made to realize this, for a great many times he will unwittingly direct you to make your drawing after a certain fashion which, as far as the drawing alone is concerned, is acceptable, but from the standpoint of the advertisement in its entirety would prove to be a failure.

COMMERCIAL ART



FIG. 11. TREATING THE SUBJECT IN PART.

Frequently you will be called upon to draw a portion of a building, allowing the remainder to slip off into suggestion. This can be done by accenting a certain part and allowing the detail to become less commanding as it is further removed from the accent. Study the manner in which the windows finally disappear. This line illustration also shows a style of fine line handling with enough solids to add character.

THE CUSTOMER'S VIEWPOINT



FIG. 12. COMBINED TECHNIQUES.

COMMERCIAL ART

The student, in the absence of a customer, should create in his mind an imaginary customer and decide in this imaginary customer's mind a definite requirement which he as the artist should follow. No other element will tend to develop his facility to perform properly and accomplish the required end. This idea of the imaginary customer is nothing more or less than a means of establishing a *fixed purpose* for a direct line of reasoning, or a certain specific end in view to be reached by the artist. As the student progresses and receives commissions in the commercial field he will learn for himself many more things about this individual, the customer.

PART III
Selling your Art
through proper
Presentation

The beginner in the field of Commercial Art is always at a loss to know how to sell his drawings. Many years have passed since the writer faced that problem and most of the difficulties he had at that time remain indelibly imprinted upon his memory. Yet the same fundamentals of selling are still adhered to by him.

Your drawings are your salesmen. Many artists have the mistaken idea that art can be sold only through some "high-powered" method. That is all wrong. Art is sold in exactly the same manner as any other commodity, and it must stand on its own merit.

When a salesman comes to you to sell some article, his success depends upon his ability to get your undivided attention and in presenting his article in such a manner that you feel the urge to buy it. When your "salesman," which is your *drawing*, goes to your prospect, the same procedure applies.

For example: Assume your prospect is in some particular line of business. You desire to make a drawing or a series of drawings for him. Now the question is, "How can you secure his work?" The beginner, through inexperience with art buyers, usually handicaps himself by improper approach and presentation. He invariably takes his portfolio under his arm and seeks out his prospect with an idea of impressing his ability as an artist upon the prospect.

COMMERCIAL ART



FIG. 13. OUTLINE AND SHADING IN PEN.

Type of pen line especially suitable for historical illustration. Carefully and conventionally detailed with no effort toward individual style.



FIG. 14. OUTLINE ONLY.

A type of illustration in harmony with the subject, light and airy, allowing the imagination of the reader much latitude.

SELLING YOUR ART

He does this by displaying a varied collection of drawings both good and bad and in most cases subjects in which the particular prospect is not interested, or which have no bearing on his business.

Buyers of commercial art realize that an artist may be capable of excellent work in some lines, and yet in others he may prove a total failure. This fact is one reason why the artist should have examples of the specific type of work he wishes to sell. Another reason is that your prospect is a busy man and his interest in your work can only be aroused by showing him drawings that are of value to him in his particular business.

If you doubt this statement, prove it to yourself in this way: Prepare several drawings—they must be good ones—of subjects directly related to the business of your prospect and add them to your portfolio. Watch your prospect thumb through the collection, and notice the revival of interest he shows as he turns to a sketch in his line. You have gained his attention, he is interested. Your sketches are speaking to him; now what are they saying? Good or bad, this is the crucial moment when judgment is being passed. At this point sales are made or lost. Be sure you have done everything in your power to fortify your “salesman.” All the encouraging things you might say about your drawing at this time will avail you nothing. Your prospect is not interested in you, his interest is in your drawing, it must speak to him. It must speak to him in

COMMERCIAL ART



FIG. 15.

Fig. 15 is similar to Fig. 11 except that in this case the interest is centered at the top while in Fig. 11 it is the reverse. This drawing was made the actual size of the reproduction shown here. A crow quill pen was used.

SELLING YOUR ART

more ways than one. It must assure him of its ability to sell his merchandise, it must reflect its good draftsmanship, its adaptability for mechanical plate-making processes, and must fulfil many other requirements.

The sum and total of this incident is this: If you wish to sell a prospect, do not show him a collection of drawings he is not interested in, get down to the point and talk in his language. Let him see what you can do in his particular line; then you will get results.

You may say, "I have no drawings to show him for I have not been called upon before for that character of work." Then it would be a good idea for you to invest some of your own time and make up a few samples, as "salesmen." When you have completed them, you are then better prepared to reach your goal, provided your subjects are well drawn.

The proper presentation of the drawing to the customer is very important. Assume you have completed a drawing or sketch which you wish to sell. Make sure that aside from its merits as a good drawing it embodies the following requirements: The white margin should be absolutely clean and free from smudge. It must be trimmed with square sharp corners and edges; if possible there should be a slightly larger margin of white at the bottom than at the top and on either side. It should have a tissue paper flap or cover to protect its surface, and over this should be a flap of a more durable material. The tissue flap, which is semi-transparent, permits the customer to make notations or cor-

COMMERCIAL ART



FIG. 16. GROUP MASS. ORIGINAL 10" X 10".

In a great many instances, the use of only a few lines is inestimable. A complicated subject is more effectively handled by forcing its accents and drawing the remainder in a very suggestive style. In the illustration above, you see an informal group mass, outlined in a very simple manner. The major and minor accents have been allowed their relative amount of attention value and the entire composition is held together with enough atmosphere to guide the observer in completing the picture in his mind. Original drawing was twice this size.

SELLING YOUR ART

rections concerning certain parts without working on the drawing. Never fold or roll a drawing—deliver it flat. A folded or rolled drawing is hard for the customer to handle, and irritates him. Use every precaution possible to make inspection easy and pleasant. It pays big dividends.

If you have a series of drawings to be presented at the same time, establish a uniform page size and let each conform even though one drawing be much smaller than the others; it means just that much additional white space around it.

Always before approaching a customer for the first time you should be thoroughly conversant with his business, methods, type of advertising and other considerations. Any sketches you propose for him should be in harmony with this program. You may have been an observer of his advertising for some time and feel that you have an idea totally different from his. This is the time to analyze his business requirements, and fortify yourself with logical reasons for the change you present. If your arguments are well founded and sound, and your sketches attractive enough, you will, in most cases, receive favorable attention and ultimately get his work, even though in the end it may be entirely different from the sketches you submitted. Your customer is always trying to improve his methods and welcomes good selling ideas.

The matter of the price you get for your drawings is another problem to face. You have never bought or

COMMERCIAL ART

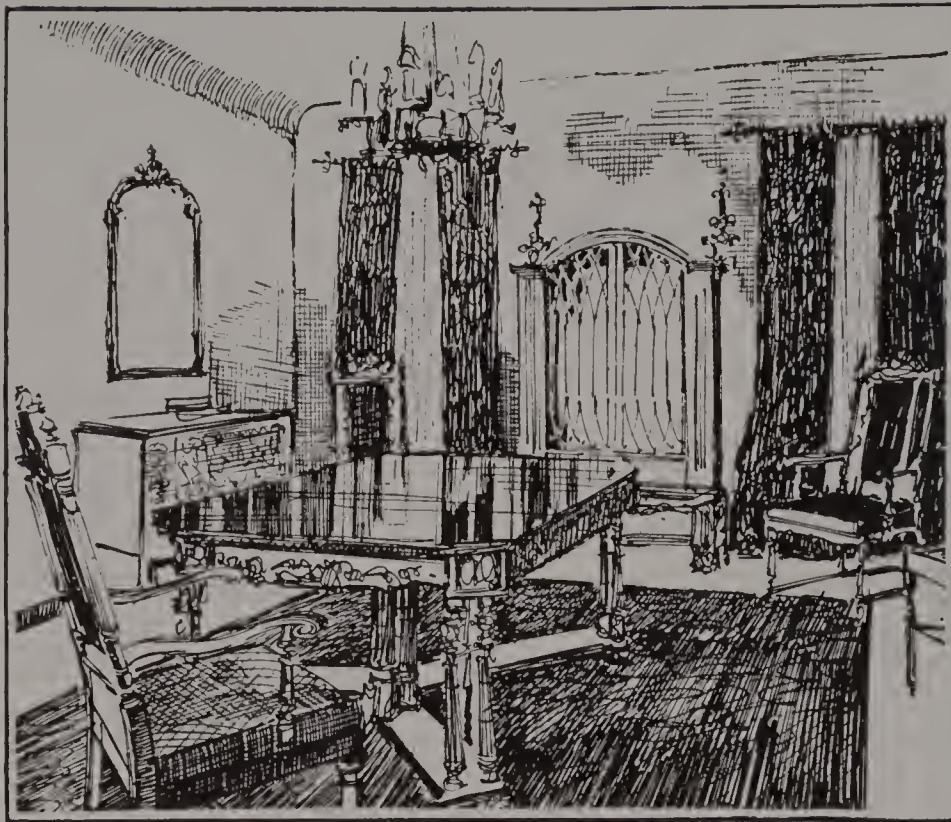


FIG. 17. ORIGINAL DRAWING 5" x 4".



FIG. 18. COMPOSITION. ORIGINAL DRAWING 4" x 4½".

SELLING YOUR ART

sold any drawings, consequently your knowledge of their worth is meager. You may have an idea of what each should cost the customer but it is all guess-work with you. You should know that commercial art has its market-price just like other commodities. The price-range is governed by the customer's ability to purchase the same character of drawing from some one else for a specified amount.

For example: Let us say a certain artist specializes in drawing shoes, due to his or her ability to produce good work in this line with little effort. This specialist has become very proficient in producing this character of drawing. He can produce the best result in the shortest time, consequently providing a large volume of work along a specialized line. His price even though very reasonable to the customer gives him a greater profit because of his speed than is possible to the beginner who labors many times as long on the same drawing. While the beginner produces one mediocre drawing the specialist turns out many high-grade ones in the same length of time. This is why the beginner must exercise much patience and endurance at the start and let the monetary angle work itself out in its own way.

It matters not how long you have studied art, nor how you have gained your knowledge, in the commercial world there is but one thing that interests your buyer, and that is the specific drawing he buys from you. It must be the incarnation of your whole-hearted

COMMERCIAL ART

ability. The buyer sits as a judge upon the bench and his decision is final. Do not try to force him to accept something he does not want by telling him its good points. If those points in the drawing are not outstanding enough to speak for themselves, better start over, and make a new drawing.

The keynote in selling your art successfully is to consider your customer as well as your art. You need not be a salesman if your pictures are right. However, salesmanship helps you to incorporate selling force into your drawings, and to make them worthy.

PART IV
Analyze your
Problem for a
Definite Purpose

When working commercially, making drawings for advertising purposes, you are, so to speak, upon the sales force of your customer. You in turn will be of assistance to him and your services will be valuable in proportion to the amount of sales-strength your illustration carries. The sales-manager employs salesmen to sell his wares. He trains them to speak in the intimate terms of the product they are to sell. They must know his sales-angles before they are fully fitted to perform for him. Likewise, you, as an artist drawing pictures of his product or illustrations relative to the selling-angles he has formulated, must be well informed regarding his problems and general program of procedure. Only with a comprehensive knowledge of the facts in hand can you enter into the spirit of his selling motives. You as a student, no doubt, are so engrossed in the interesting subject of art and of creating drawings and designs that it seems a form of pastime or diversion, but in drawing commercially you must be aware of the fact that each drawing should be considered seriously. Those drawings are not merely the result of an idle pastime but must be the incarnation of every ounce of endeavor you possess to tell the picture story to the reader public. Heretofore, in making sketches of various subjects, it was up to your decision whether the drawing had merit and deserved to

COMMERCIAL ART



DRAWING
FIG. 19.



PHOTOGRAPH
FIG. 20.

DRAWING OVER SILVERPRINTS.

You will find the silverprint process quite a time saver, in cases of reproducing photographs as pen drawings. Figure 20 shows a reproduction of a photograph, and Figure 19 the pen drawing made from it. The result is accomplished in this manner: From the photograph, the engraver makes a silverprint, which is a photographic copy on drawing paper; the artist then makes his drawing directly on the silverprint working over the copy with waterproof drawing ink. After a sufficient amount of detail is drawn, the print is sent to the engraver to be bleached and dried. After bleaching it appears as a black-and-white drawing on white paper. The drawing is then completed and refined in detail where desired, in the same manner as if originally started on white paper.

ANALYZE YOUR PROBLEM

be exhibited, whether it was to be left in your portfolio or thrown into the waste basket. Now, you are entering into a field where every picture you make and sell is intended to be reproduced, and viewed by thousands of people. It is your duty to study these people as you see them, to learn their viewpoints, and then to work accordingly.

The newspaper, in which medium your first efforts will probably appear, has its definite limitations because of the inferior quality of paper on which newspapers are printed. The wash drawings, or shaded drawings in any medium except when handled very *skillfully* with a thorough knowledge of the mechanics of engraving, yield doubtful results in news print. This allows you the latitude of the black-and-white pen line, the etched crayon drawing, dry brush or line and Ben Day shading process. Each of these different processes will be taken up in detail, and their possibilities and impossibilities explained later.

Due to the many mechanical stages through which your drawing must pass before it appears in the printed form it will, if improperly made, lose a great deal of its original quality. The student will greatly increase his versatility by carefully inspecting various newspaper illustrations with the idea of analyzing just how the original drawing was made. In the analysis try to discover why that subject was chosen, what was the motive back of the illustration that prompted it. Give some thought to the artists' reason in selecting the

COMMERCIAL ART



FIG. 21. CENTRALIZED INTEREST.

Simplify your composition and centralize the interest. Make each stroke count, and allow the white paper to play its part in your plan.

ANALYZE YOUR PROBLEM

medium of handling; that is, whether it is a line drawing, crayon, etc., and whether it is a zinc etching or a half-tone. All of these things will familiarize you with the manner of handling your work under the same requirements. Magazine illustrations, if produced on high-class paper, afford a greater latitude for expression than the newspaper. Many magazines of today will permit of the use of half-tone with a screen as fine as 150 lines to the inch. This will permit the use of wash drawings as well as line drawings, or as a matter of fact almost any medium you desire to work in. Drawings made for half-tone reproduction will admit of a much more delicate handling than those requiring the zinc etching plate for reproduction. It is safe to say that drawing for newspaper reproduction demands a much broader and heavier treatment, because of the blackness and density of the surrounding advertisements. Frequently in a newspaper you will find an illustration of a very few and fine lines, the entire treatment being very light; but at the same time the successful advertisement bearing this treatment also carries a wealth of white space around the illustration, separating it entirely from the surrounding interference.

Let us assume that you are to make a drawing, to illustrate an advertisement. First, consider some of the following angles: Why does your customer want a drawing? How will a drawing help him in his advertising? What would be the logical subject for an

COMMERCIAL ART

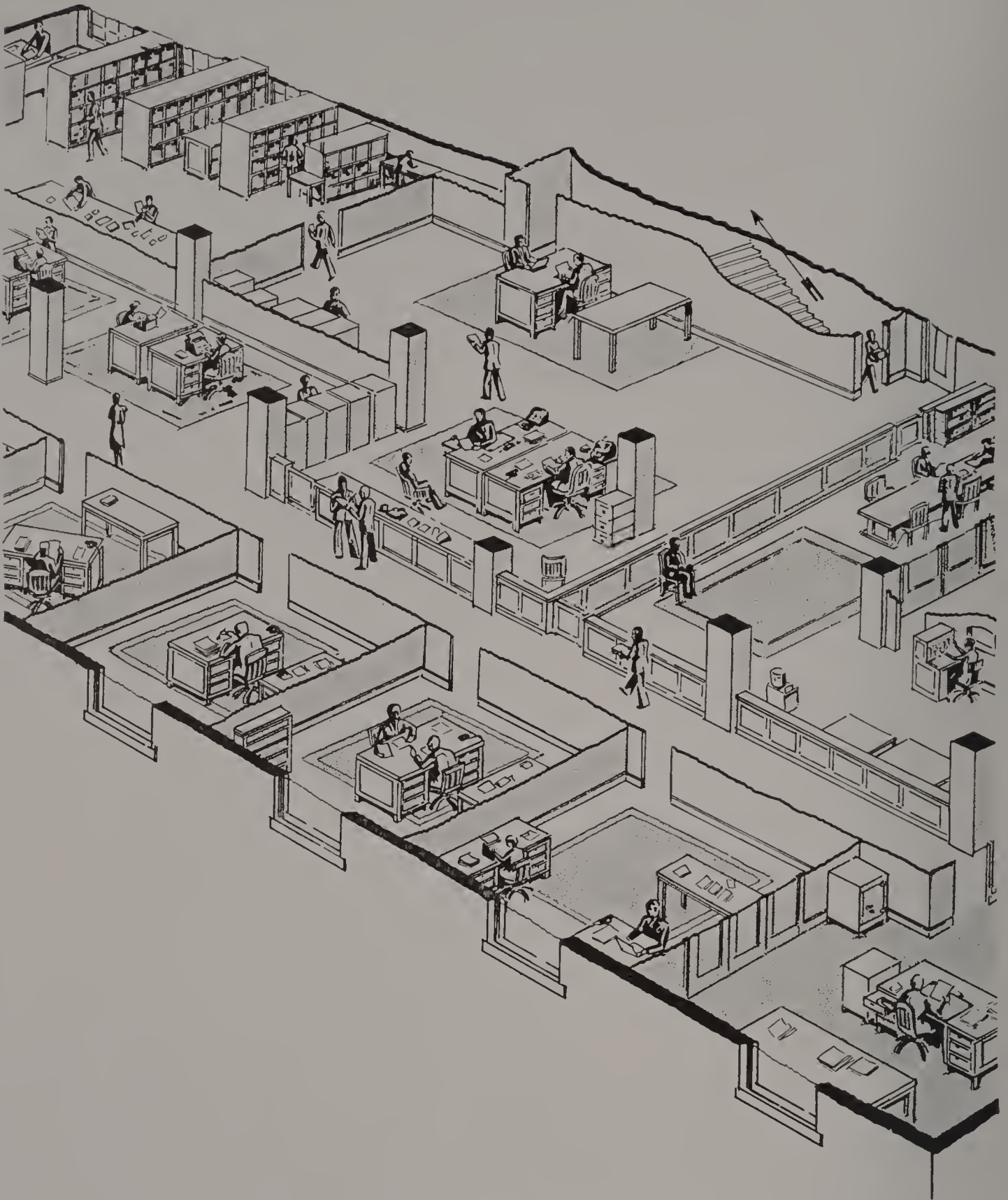


FIG. 22. ISOMETRIC INTERIOR.

In the drawing of a complicated subject, as the above, care must be exercised to simplify your technique and avoid unnecessary lines. Each object should be drawn in as simple manner as possible. Work for surfaces and "modeling" rather than detail.

ANALYZE YOUR PROBLEM

illustration, and how should that illustration be handled? These are questions that will help you to analyze the subject in hand and arrive at the correct conclusion. Many times you will be prompted by your first thought to produce a drawing that at the moment seems quite suitable. It may deal directly with the merchandise you are helping to sell. It may seem logical that you use that kind of drawing, but when you put it to further test you may find that the subject is all wrong from the standpoint of the reader of the advertisement. After all, the reader of the advertisement is the one individual whose interest you are trying to arouse.

No matter how insignificant the task in hand may seem, to your customer it fills an important place, and from the mechanical side of reproduction it presents the same difficulty that will arise in the larger or more lucrative commissions to you. Commercial art successfully applied continually demands from the artist his whole-hearted enthusiasm. The same might be said of any other line of endeavor. Creative art of any kind reflects the mood of the artist, consequently any lack of enthusiasm will show very plainly in his drawings. Your customer upon viewing the completed drawing may be dissatisfied and yet unable to discover what is wrong with it, for it may bear good draftsmanship and balance, but the absence of spontaneity will reflect itself so strongly that it will have no sparkle or zest, and due to that fact it will be flat and commonplace.

COMMERCIAL ART

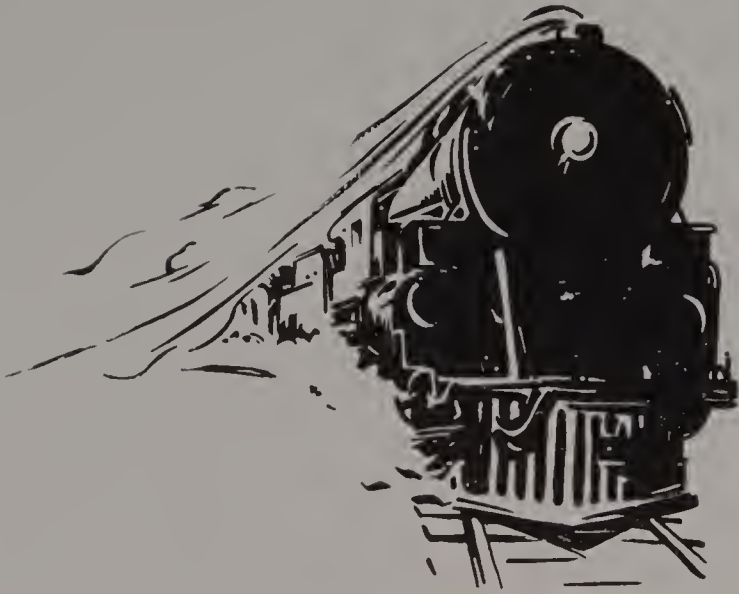


FIG. 23.

The two locomotives shown in Figs. 23 and 24 will demonstrate the effect of a few simple lines, and their expression. Both drawings are identical, with the exception of the lines indicating smoke. In Fig. 23, by the use of a few sweeping lines the effect of speed is produced. In Fig. 24, with two lines drawn to represent smoke lazily drifting out of the stack, one would immediately know that the locomotive was standing still.



FIG. 24.

ANALYZE YOUR PROBLEM



FIG. 25.

Speed is indicated by the neglect of definite detail and the addition of several "Speed strokes." Even these strokes must not be sharp, but have a certain quality of atmosphere.



FIG. 26.

COMMERCIAL ART

This quality so essential to good work does not end necessarily in the matter of drawing but enters into the entire analysis of the situation. You must study your customer, his products, his readers to whom your art must appeal, and the publication in which your work will appear, for your drawing must not only be well made, but must reproduce to its best advantage in the medium or publication, whichever the case may be, wherein it shall appear.

Many stumbling blocks will arise to strip your ambition and dampen your ardor but by earnest and intelligent analysis they can be overcome one by one and you will surely profit greatly by your diligence.

The creative genius of the artist may know no bounds. Beautiful drawings and paintings flow from his pen and brush without apparent effort, but if he does not know the definite limitations of reproduction his work will be for naught and his disgust will finally choke his ambition. He must apply that same inventive power in overcoming mechanical reproduction obstacles that prompt the genius of his drawings. Again, we will assume he retains his artistry in all its originality, and he has applied himself and mastered the trickery of reproduction, but if he has failed to acquire the viewpoint of the reader public his work will still remain unsought. His efforts may be likened to those of an orator, for after all the orator and the artist are similar in the fact that they both paint pictures, one with the brush and other with words. Should

ANALYZE YOUR PROBLEM

the orator paint a word picture, beautifully spoken, but on a subject with which his audience is not in harmony, he would not receive the plaudits that will be obtained with a more simple speech direct to the hearts of his listeners.

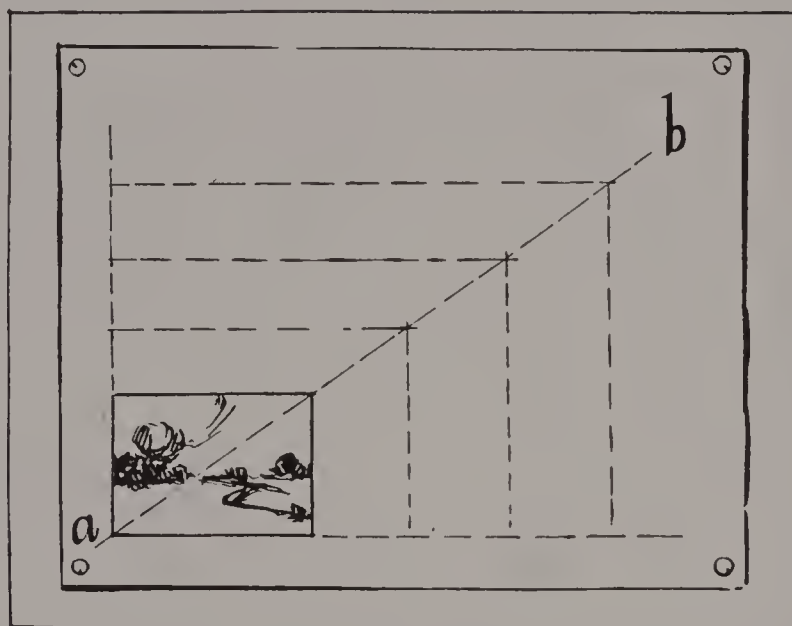
When starting a drawing your first step is to visualize it in your mind thoroughly. You should have a complete mental picture of just what you are going to draw in hopes that through some certain technique you will arrive at a successful conclusion. A well-visualized subject is more easily and simply treated as a final drawing. It enables you to draw more directly and forcefully without the uncertainty of results.

Select a definite subject, fix its form firmly in your mind and draw it in the most simple manner possible. Start with several small roughs drawn on tracing paper, or for that matter any kind of paper. See page 13. By the use of tracing paper it is possible to develop one suggestion on top of the other without the disturbing element of erasing, for after you have made several roughs you may find that your first conception was the best and will return to it for further development. In the making of these miniatures work for mass and general outline alone, employing no detail. If you will acquire the habit of using a blunt-pointed soft pencil in doing this, you will not be tempted to employ detail nearly so much as when using a sharp pencil. This matter of miniature roughs is merely a means of thinking with the

COMMERCIAL ART

pencil, so to speak, or visualizing your thoughts for future development.

Now, with an acceptable rough, let us start to develop a sketch for the finished rough. Attach a sheet of tracing paper to the drawing board, with a sheet of heavy white paper between to afford a white surface upon which to work. In the lower left-hand corner measure off the dimensions of the intended finished engraving, then draw a diagonal line, $a-b$, as shown in



the accompanying diagram. You will see that a drawing made any size with its two sides parallel to the sides of the small diagram intersecting each other on the diagonal line will reduce to the proportion of the original. In this manner establish the size your finished drawing will be made. Now take the small rough you have made and lay out (sketchily) the outline at the enlarged scale. The purpose of working on tracing paper in the early stages is important for in so doing you have a latitude of correction and erasure that does not

ANALYZE YOUR PROBLEM

hinder your work when it is finally developed and transferred to the paper upon which you complete your drawing in ink. After you have developed your rough on the larger scale you should give thought to such details as shades, shadows and highlights. These should be worked out in pencil and a general construction of the balance of the mass given. When you are satisfied with this development you will find that you have a very clear idea of what your finished drawing should be. By blacking up the back of the finished rough with a soft pencil and attaching it with thumbtacks over the clean white sheet upon which the finished drawing is to be made, you will be able to transfer by tracing with a sharp pencil the outline of the drawing upon the drawing paper. Remove the tracing paper and you are ready to start upon the finished drawing. Any preliminary lines or guide lines now should be lightly drawn so that the surface of the paper will not be disturbed or the blackness of the ink lines weakened by erasure upon completion of the drawing. The matter of technique or medium to be chosen is a broad subject and will be taken up in another chapter, with an explanation of where each should be used and why.

Many subjects will yield themselves to a certain type of drawing as far as the drawing itself is concerned but as to the reproduction you will find in many instances it will be necessary to employ some other style because of certain complications due to mechanical printing processes. Let us bear in mind that a

COMMERCIAL ART

proper decision at this time is vital to the ultimate result of your work. A comprehensive knowledge of engraving, printing paper and printing processes will serve as your rule and guide.

Always bear in mind that your duty to the purchaser of your art is not ended when the picture is finished. It is as much a part of your business to properly plan further steps in production, whether you actually take part in that process or not, for if the work is produced with intelligent understanding of how it is to be used the purchaser of your art will have no trouble in applying it to his purpose. Many times you will be given a commission which is not wholly to your liking. It will be hard for you to "feel the picture," as artists say. Ideas will seem to stagnate and that ease with which you usually perform will become an arduous task. That is the time when you will be called upon to throw yourself into the work at hand and forget the particular like, or dislike, for that character of work, and enter the commercial realm with every ounce of vigor you can muster. An ounce of effort expended at such times spells the difference between success and failure. After you have mastered the perplexing problem in a satisfactory manner the reward in personal respect and satisfaction will be well worth your effort.

PART V
LAYOUT
and its
Importance

By the term "layout" is meant the physical arrangement of the various units composing an advertisement. The first step in the preparation of layout is the proper arrangement of the illustration with respect to size, shape, position and its relation to headings, logotype and white space all harmoniously arranged within the required space. As a usual thing, these layouts are prepared by a specialist in that line, in the advertising agency, and are passed on to the artist, to complete his drawing in conformity with the layout. However, many occasions will arise wherein you will be called upon to perform this duty. In either event it is necessary that the artist should have a comprehensive and thorough knowledge of the subject as it deals directly with the manner in which he should make his drawings.

Pick up any of the standard periodicals of today and glance through the advertising pages. On every page you will find the handiwork of the layout man. Each advertisement has its appeal in its own particular way and bears directly upon the article it is exploiting. You will find some advertisements so delicately balanced and pleasing to the eye that you wonder how the several individuals that took part in it could collectively produce such a unified product. This is the result of proper planning in the layout and strict adherence

COMMERCIAL ART

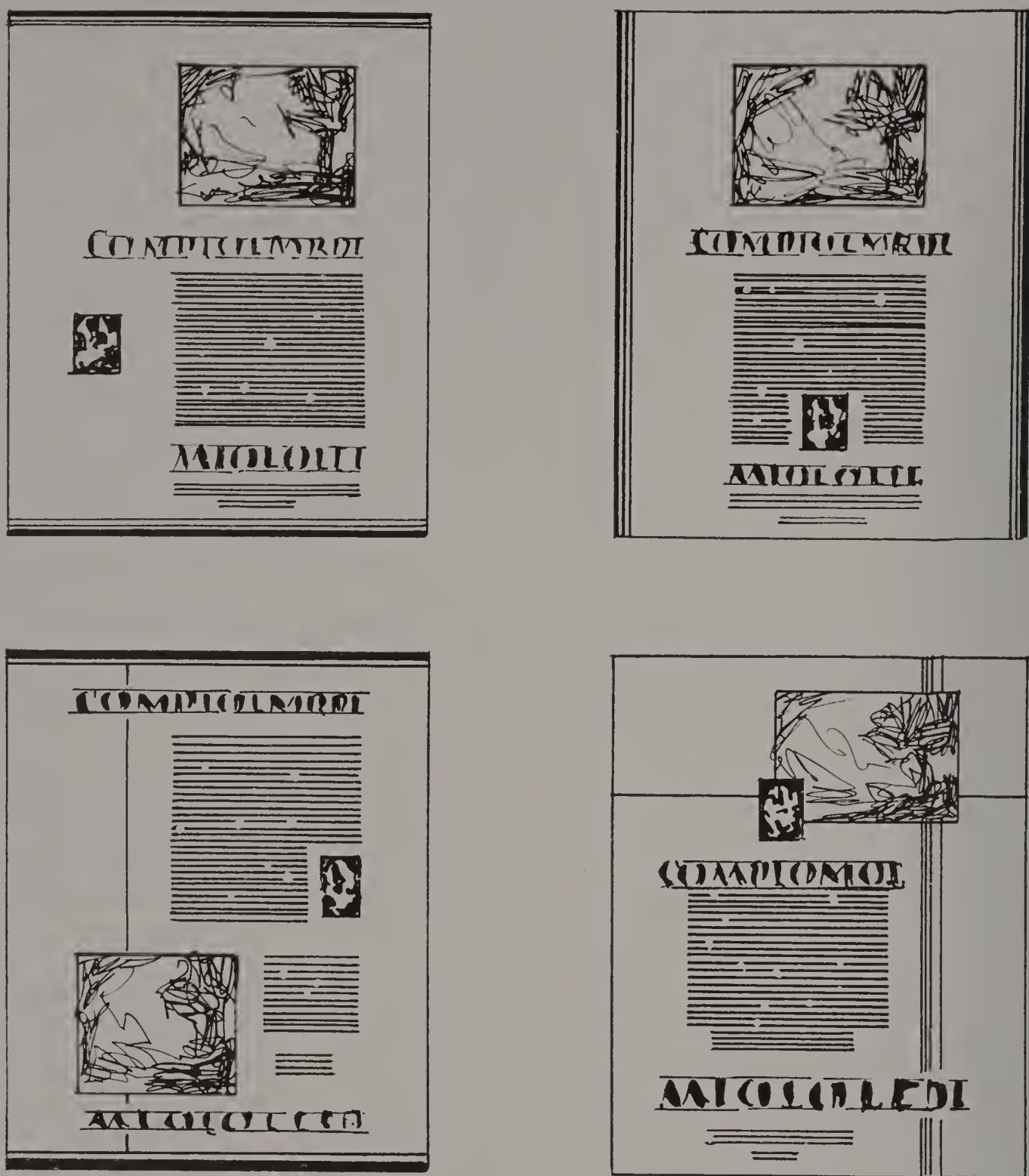


FIG. 27.

Balance and harmony of the elements of an advertisement are as important as the drawing itself. The artist should be thoroughly familiar with, and capable of good layout.

LAYOUT AND ITS IMPORTANCE

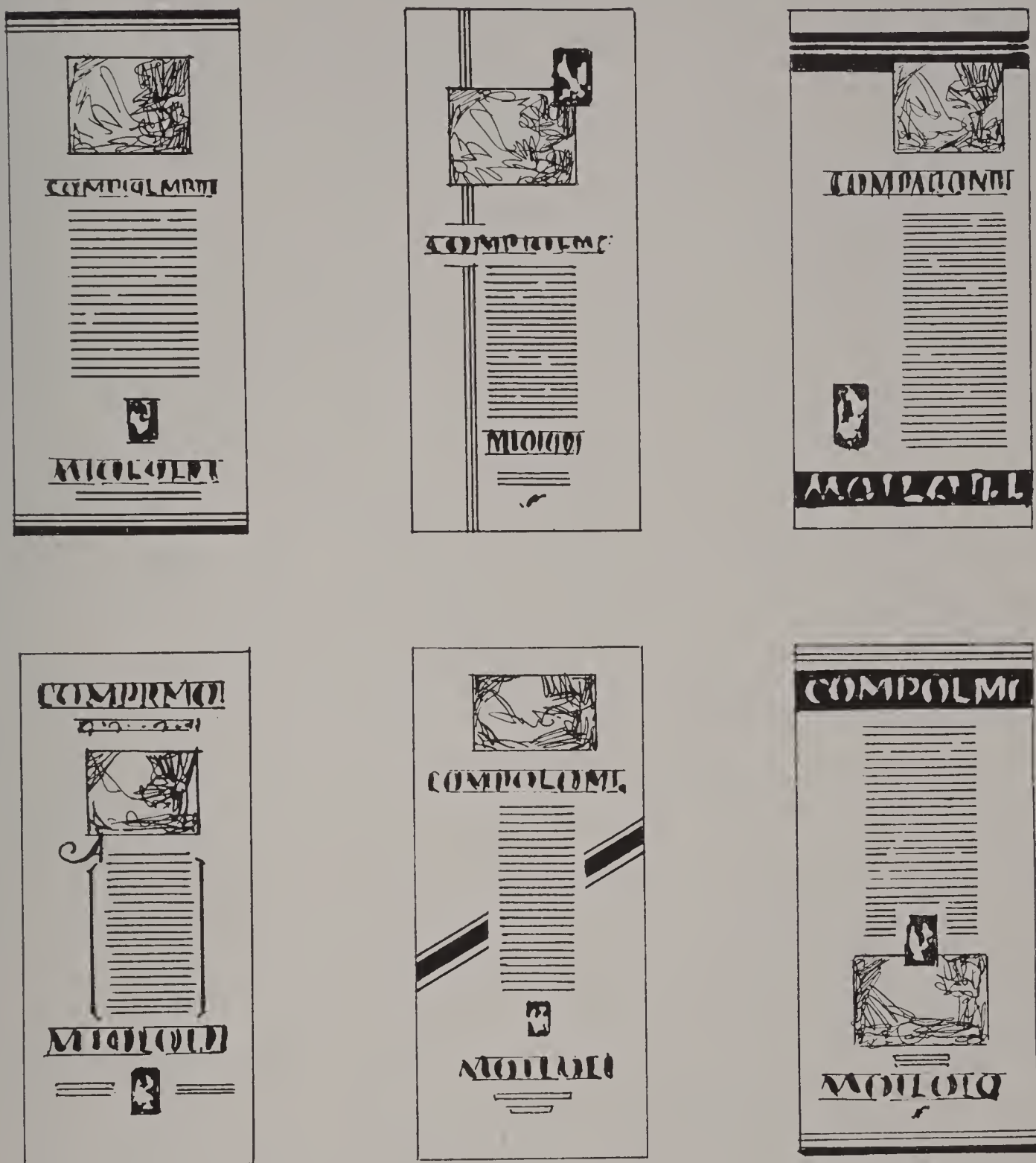


FIG. 28.

In planning layouts, work first in miniature as above. By arranging the units in various positions many pleasing effects can be obtained. The layouts on pages 62 and 63 are varied arrangements of the same units.

COMMERCIAL ART


to it by the artist, the copywriter, the photographer, the engraver and all connected with its final completion. The keynote of a good layout is simplicity. By simplicity is meant a clearly defined scheme, with a definite purpose and free from any appearance of confusion. A salesman in approaching his purchaser, if he is a good salesman, plans his method of approach and guides the trend of conversation with but one point in view and that is to sell his prospect. An advertisement is a silent salesman and must perform in the same way, in a subtle manner. The artist in developing a layout will find that the idea for the illustration will develop itself much more clearly while making a few roughs of the entire layout than if he started on the illustration alone with no idea of how it is to be used. The reason for this is very apparent, for while studying the layout he is acquainting himself with the unit as a whole.

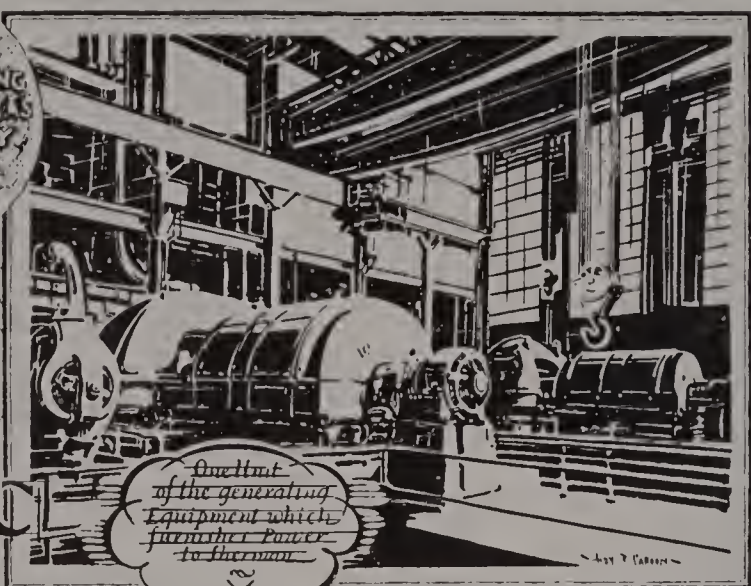
LAYOUT AND ITS IMPORTANCE



FIG. 29.

Square layouts usually are not pleasing unless very skillfully handled. The vertical rectangle is more successful and enjoys more universal use.



ELECTRIC POWER *Shines Energy to* INDUSTRIAL CHILDREN

FLASHING electric energy to the fifth largest industrial city in Texas is a great and thrilling job. Each day throws new life, new hopes, new plans and new duties into it. Long since older industries each year quicken their pace, increase their production, broaden their markets, new industries are built, new families move in, new homes and new stores and commercial institutions are established.

Life here grows! Soundly, steadily without inflation or depression. Definiteness is built mark upon everything which takes part in its progress. From the simplest home-lighting task to the most strenuous industrial power demand the I. C. S. P. Power Light Company maintains a dependability of

its service which is unequalled in any metropolitan American city.

In the real panorama of production, electric power plays its vital part. On the farm it irrigates, compresses, the textile mills, the oil mills, the gas much very many accurate and repairing plants, even in the transportation of coal, electric power is inseparable, denotes a real progressive step.

The engineer, executives and technicians of the I. C. S. P. Power Light Company, from their planning and building for the shipment of iron, from their source for iron, the medium of their instruction, while rugged and of the finest type known to the mind, they, yet too, the instant and tremendous increases in electric power can always be made.



Providing for the needs of today from tonight the 5/10 million new.

INDUSTRIAL POWER LIGHT & STREET LIGHT COMPANY

FIG. 30.

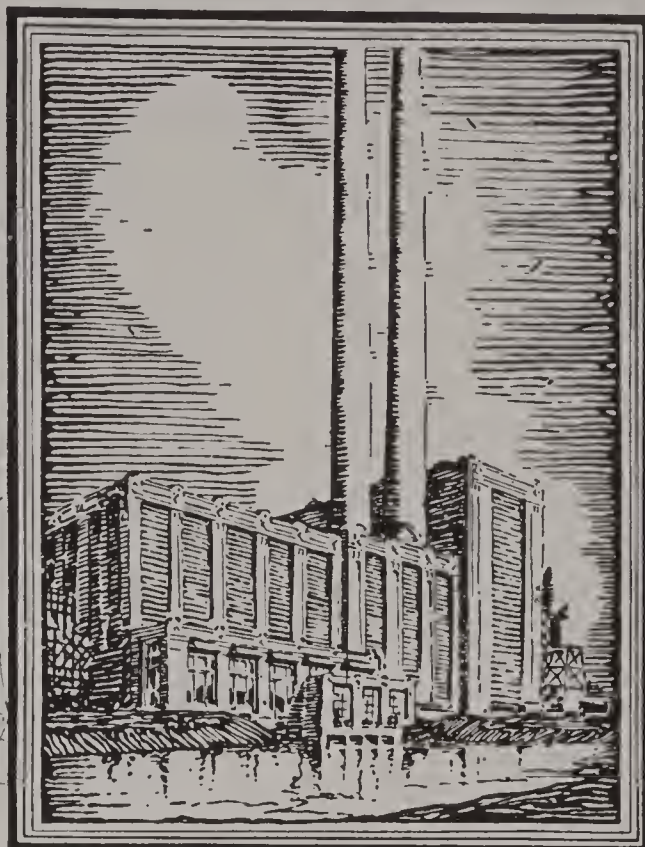
Original drawing 16" x 21". See preliminary miniature rough on page 12.

LAYOUT AND ITS IMPORTANCE



Yesterday.

she was now used, over time was fairly capable of serving the simple needs for classes now. It was of course very much less than she had assumed the importance in daily life a book would be.



To day

chooses to, says plant is not capable of meeting the demand for electricity. Great generating station produces electric power which is transmitted over high voltage power lines two or only miles away to a possible metropolitan electric service in the smallest town. The Texas Power & Light Company possesses this type of electric power in Texas and is now in Texas producing

the PURPOSE of the
the Colver & Light Company
of the same Institution

L IS INTERESTING to note that the greater Americans use soap, lead a healthier life, are purer, more moral and more pious, and live longer than those of any other people. The reason for this is that the American people are more virtuous and more honest than any other people. This is the reason why the American people are more successful than any other people.

The Texas Power & Light Company was established sixteen years ago for the purpose of rendering electric service to Texas cities and towns.

~~It was evident, even fifteen years ago, that colored people could not be able to supply the rapidly multiplying needs of these people as a class.~~

After a year's and experiments in the use of the Edison Power & Light Company, together with other leading electrical engineers throughout the world, found that electric energy could be transmitted over high tension power lines by passing currents from large generating stations, thus saving space for the transmission type of electric service for smaller communities.

The man has day until this is has to be in the part
of the company, and so on, to see some
degree to the needs of those people, and so
the day will in any case, twenty years could a
day some of the day or night, even in a class

~~Buyer and receive instant, dependable electronic
service at a reasonable cost.~~

Revelation by changes have been made in the methods of generating and distributing electric power. Changes so rapid in rapid succession that equipment which is the latest today will be obsolete tomorrow. Electric power has become so vitally a part of our daily life that it would be impossible for us to conceive of a day in which it did not exist. The enormous burden of responsibility which is thus thrown upon the "A. B. C. of Electric Light & Power" is borne not by our American citizens.

The high all the changes in the economy
advancing through pure science and good through
a science and depression; and this process
which would not only develop the "re-
form" of the light Company, but hold it in a
concrete purpose. As a rule, these Tennessee
rail was secured by the Company, however
in the electric source.

BROOKS OF THE
 FUR THE
 IN THE
 RURAL
 PRINCIPAL
 HOUSE
 TEXAS OF
 THE OF THE

THEORY & PRACTICE

FIG. 31.

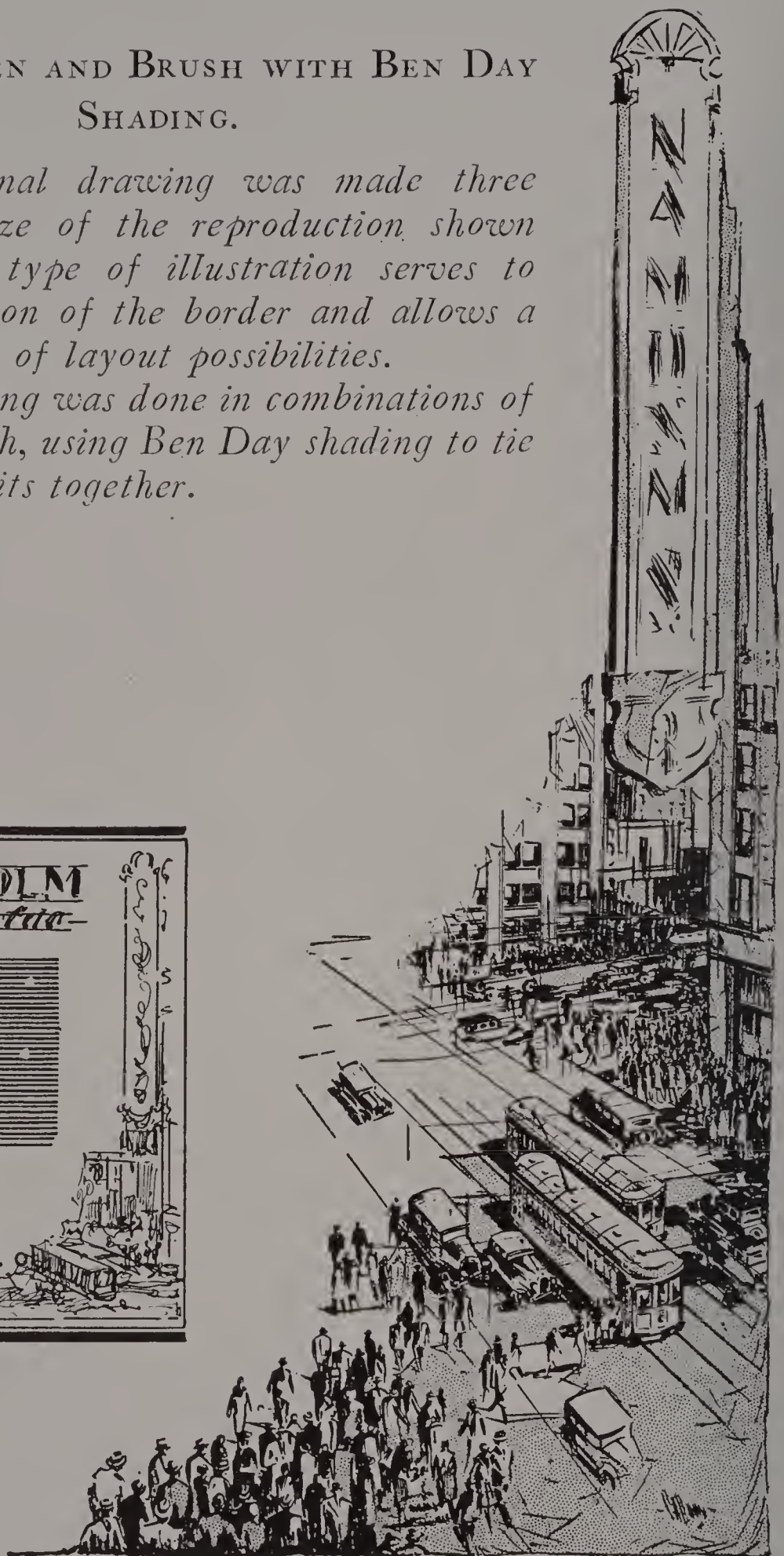
Developed up to newspaper page size from the miniature rough on page 12.

COMMERCIAL ART

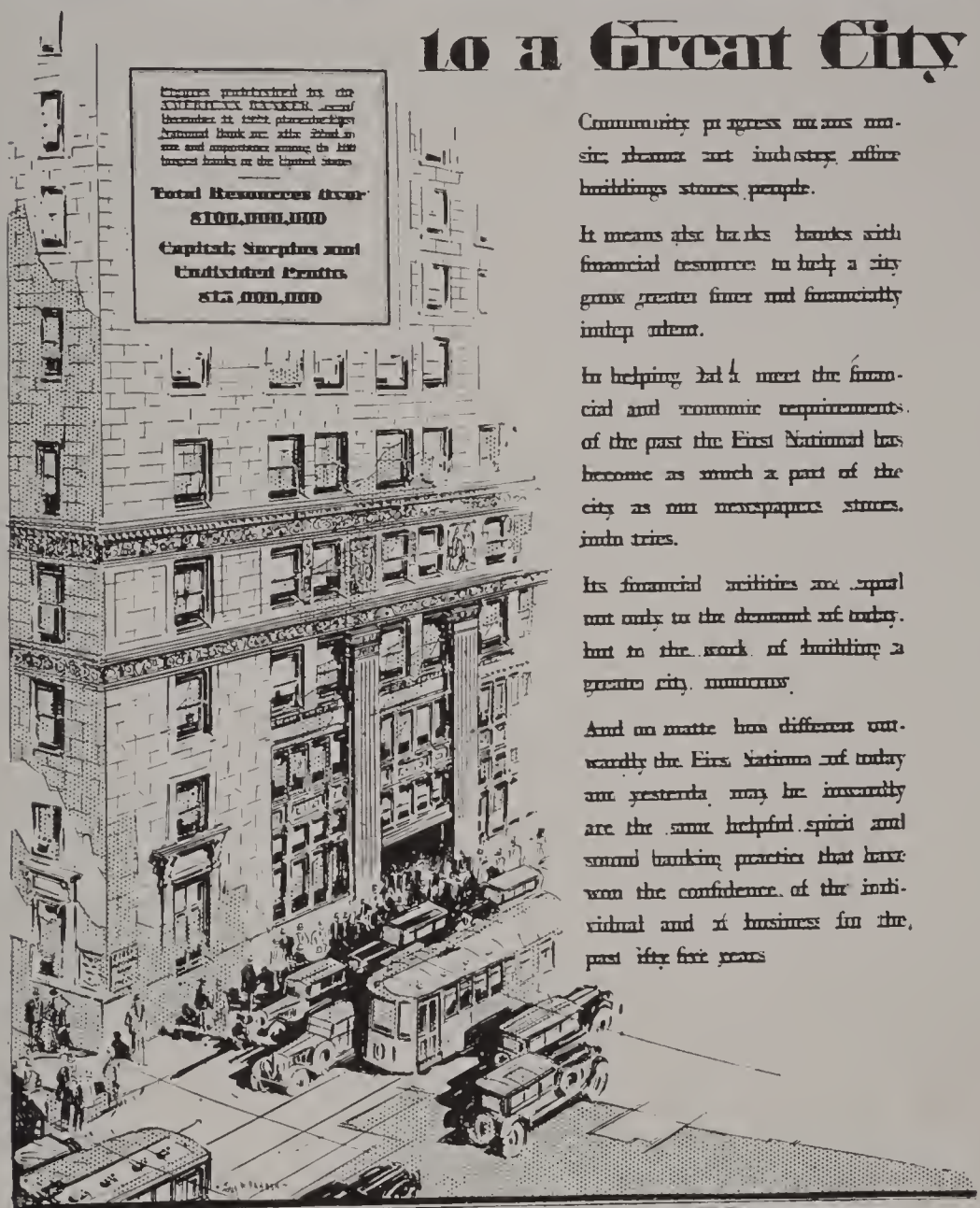
FIG. 32. PEN AND BRUSH WITH BEN DAY SHADING.

The original drawing was made three times the size of the reproduction shown here. This type of illustration serves to form a portion of the border and allows a great variety of layout possibilities.

The drawing was done in combinations of pen and brush, using Ben Day shading to tie the many units together.



What a Great Bank Means to a Great City



Business protected by the
AMERICAN BANKER, and
therefore its right place in the
National Bank are also found in
one and experience among the
largest banks in the United States.

Total Resources Over
\$100,000,000

Capital, Surplus and
Undivided Profits
\$75,000,000

Community progress means indus-
try, science and industry, office
buildings, stores, people.

It means also banks—banks with
financial resources to help a city
grow greater, finer and financially
independent.

In helping that meet the finan-
cial and economic requirements
of the past the First National has
become as much a part of the
city as our newspapers, stores,
industries.

Its financial activities are equal
not only to the demand of today,
but to the work of building a
greater city, tomorrow.

And no matter how different our
worldly the First National of today
and yesterday may be, invariably
are the same helpful spirit and
sound banking practice that have
won the confidence of the indi-
vidual and of business for the
past fifty-four years.

FIRST NATIONAL BANK

Capital, Surplus and Undivided Profits, \$75,000,000

A MEMBER OF THE AMERICAN EXCHANGE AND TRUST COMPANIES

FIG. 33.

Reproduction of an advertisement five columns by fifteen inches. The drawing was made one third larger than the original reproduction. Type was set and pasted in the layout and an etching made of the entire advertisement.

PART VI
Suitable *Technique*
for a definite
Purpose ∅ ∅ ∅

The professional touch, the ultimate aim of every aspiring commercial artist, is a quality to be obtained only after much practice. The uncertain scratchy line of the beginner is proof of his doubt as to just exactly where the line should be, or how many lines there should be. Gradually, after much practice, this uncertainty disappears in your work. You will not yourself be aware of it at the time but it will be the result of self-confidence and added skill through earnest effort. First, you should be sure that you know what you are going to draw, and then draw it in the shortest possible time and in the most simple manner. Do not clutter up your drawing with experimental touches here and there that are meaningless, for they do nothing but complicate your work. Apply strength of line and sharpness of detail. Allow nothing in your drawing that has no meaning. Many times you have looked at a drawing that seemed so simple that you judged that it took but a few moments to make it. That apparent simplicity may have been the result of hours of elimination, in a once-complicated drawing. It is much more difficult to express the thought in a few lines than in many. Before starting a drawing on any subject or for any purpose you will do well to spend a few moments thinking about what you intend to do.

COMMERCIAL ART

The ideal medium of expression is the lead pencil. With it you feel a freedom in drawing, and the ability to produce and arrange tones of varying depth and density. Unfortunately, however, in working commercially the lead pencil can be used only in a very few cases for the finished drawing. The first conception and roughs may be worked out very completely in lead pencil but due to its reproductive limitations the final drawing, or what we might term the working drawing from which the plate is to be made, generally requires a more definite technique. For instance, in working out the roughs, the outlines and the placing of the shadows may be worked in a graded manner, but when the rough is to be developed with a pen for reproduction of a zinc etching the technique must be altogether different, because the pen produces positive lines in solid color and the method of securing a grading of shadows must be either by means of the strength of the line or the distance apart that the lines should be. In the case of crayon used on rough paper the graduation is regulated by the amount of the white paper showing through. The same applies to the dry-brush method. Pencil drawings may be reproduced in half-tone or in highlight half-tone process, with splendid results, provided the screen employed is from one of the finer textures. However, the paper upon which this highlight half-tone or fine screen copper half-tone can be successfully printed must be a smooth or coated paper. This of course eliminates newspapers.

SUITABLE TECHNIQUE

many of the magazines, and rough-finished antique paper.

The medium of the pen line because of its general adaptability will be taken up first. One of the important things that the student should thoroughly understand and master is the making of lines that will reproduce in the engraving in their true value. The line when properly made should be positive and black, for should the line be grey from lack of sufficient ink or from lack of positive contact of the pen and paper, the result will be doubtful. A dirty or clogged pen or ink that is too thick will be a source of continual annoyance to you. Always work with a clean pen and fresh ink so that your lines will be firm, sharp and clean. Now that the student understands the importance of clean, sharp lines for reproduction let us take up the relation of one line to another. Lines drawn too closely together and not leaving enough white space between will have a tendency to fill up with ink in the printing, especially where rough or coarse paper is used. Rough or coarse paper does not necessarily mean cheap paper for some of the finest grades of paper have a rough surface. This filling between the lines with ink is due to the fact that in engraving two lines that are too close together the space between which is not intended to come in contact with the paper will be so shallow that the surplus ink which the lines are bound to collect will fill this little trough and the result will be that the two lines and

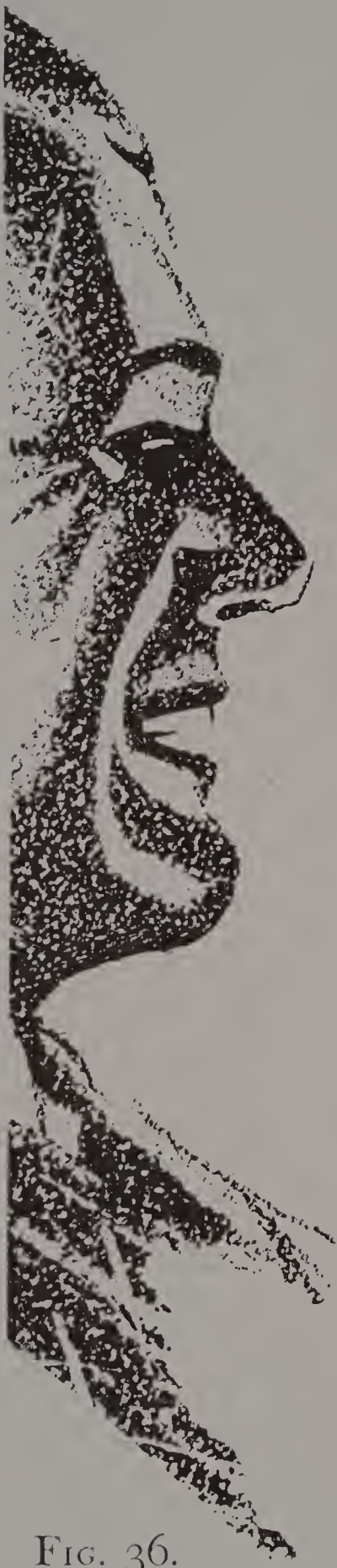


FIG. 36.



FIG. 34.

This shows the relative tone values of a crayon drawing in its original state and after reduction.

Figure 36 is a reproduction, actual size of the original, while Fig. 34 shows the same copy with one half reduction,



FIG. 35.

and Fig. 35 with two thirds reduction. The original was made on rough paper with a grease pencil. Observe how the texture becomes more refined with greater reduction and has a tendency to become more dense.

SUITABLE TECHNIQUE



FIG. 37.

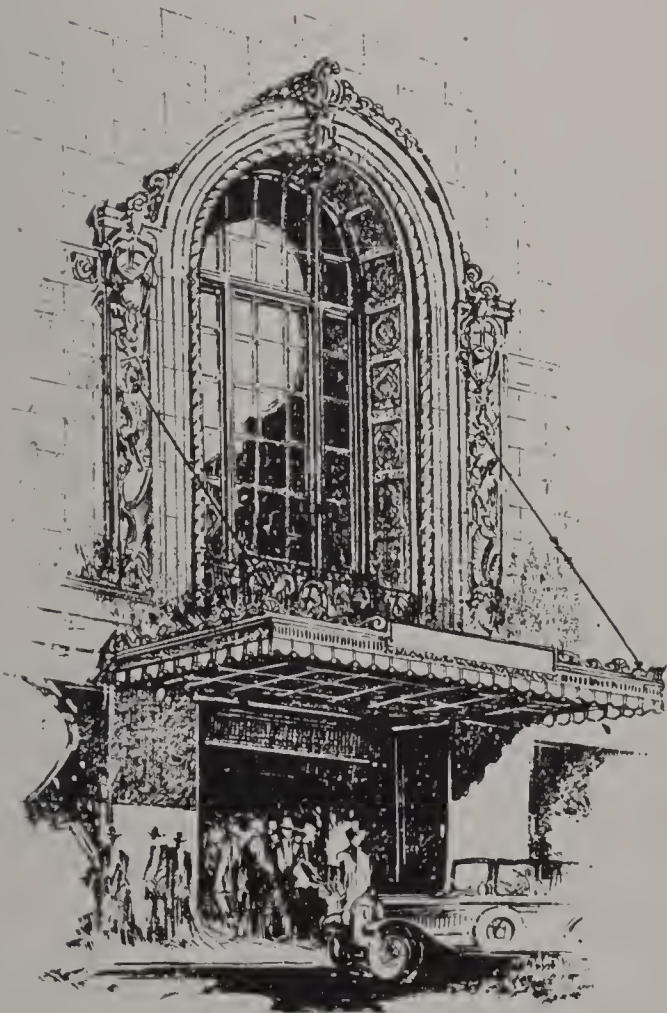


FIG. 38.

Figures 37 and 38 illustrate the use of the pen in connection with crayon to substitute the more intricate detail, not possible to get with crayon alone. The crayon, or grease pencil, affords a very pleasing and soft medium in which to work, and properly executed, a crayon drawing yields a very satisfactory reproduction.

COMMERCIAL ART



FIG. 39.

Figures 39 and 40 illustrate two opposite color treatments of the dry brush technique. The use of the almost solid black background accentuates the hightones of the face, and affords a very forceful style of illustration. Figure 40 is best used where a great amount of white space surrounds it. Try copying these two subjects twice the size on rough paper.



FIG. 40.

SUITABLE TECHNIQUE

the space between will print as one solid line. This same precaution exists where several lines are used to cross each other at various angles.

The chart on page 6 shows several different treatments. You may very readily see which will give you trouble first. If drawn too closely together, the plate will fill solid in printing because of the small amount of white space between. However, many instances will demand from an artistic viewpoint this method of cross hatching. Then by all means use it, but at the same time exercise precaution and do not close the lines up too much. If the paper upon which your reproduction will appear is of a very smooth and hard quality it will permit of a much closer handling than if it be rough and soft.

Another feature in the making of the fine line drawings that is well to bear in mind is: when printing upon rough and soft paper the line has a tendency to spread and be much wider than if printed on a hard smooth surface. It is easy to understand why this could be, as the printing plate has a tendency to mash the paper and squeeze it up between the lines.

The use of the line is manifold. It may be used as the boundary line of an object or used in conjunction with many other lines to form a tone. In any event, wherever used it should be sharply defined. Commercial artists of years of practice realize the importance of positive lines and avoid weak, indistinct or scratchy grey lines in their work. There is no

COMMERCIAL ART

grading of tone in line work, except as the line varies in its size, or in the relation of several lines to each other. Grading of tone comes only in half-tone work, and that is another subject to be taken up later.

Let us remember that a line must be positive, it must start and stop in a definite black beginning and ending and not start with a grey indefiniteness and end in uncertainty. The paper used to draw these lines upon should be white, just as clean and white as is possible to procure for only clean, white paper and black, positive lines make good engraving. The preliminary sketch work for the student should be done on separate paper and not upon the sheet intended to be used for the finished pen drawing, for every device that can be used to keep the eraser off the finished pen drawing will render you a just that much better reproduction. Your drawing may be well made and lines black enough when completed but after scrubbing with an eraser to remove the preliminary pencil lines you will find that those fine black pen lines have been reduced to a grey, in places. Many artists work out their preliminary pencil sketches on tracing paper and after a satisfactory outline has been arrived at by blacking the back of the tracing paper with an ordinary soft pencil, tracing over lightly with a harder pencil as explained in Part IV, the outline will appear upon the paper plain enough to serve as a guide and still light enough so that it can be easily eradicated

SUITABLE TECHNIQUE

The drawing to the right was made 8 inches high. It demonstrates the use of solid blacks and whites, and the occasional outline suggestion to carry the design. The angles are made sharp to get the effect of a well-pressed suit of clothes.



FIG. 41.



FIG. 42a.



FIG. 42.

The drawing to the left was made 7 inches high. As in the drawing above the solids were used, but by a different stroke and contour of figure the effect of soft unpressed clothing is obtained. Study these two examples of technique. They will be very useful to you.

COMMERCIAL ART

Figure 43 was made 8 inches high. This illustrates a sketchily done semi-dry brush technique highly suitable for the subject. Great latitude is allowed in this style, yet the anatomy of the figure must be as studied as in the more carefully done technique. The original was made with a brush on medium rough paper.



FIG. 43.



FIG. 44.

This illustration shows the possibilities of this technique in greater reduction.

SUITABLE TECHNIQUE

without disturbing either the surface of the paper or the tone quality of the ink lines.

You have been directed to make drawings for reproduction on white paper. Not only should it be white but it should remain that way; after practice the student will become accustomed to working on a drawing without soiling the paper. After the drawing is completed if the artist is reasonably careful it should be necessary to do very little cleaning with the eraser and then an eraser should be used that will not affect the black quality of the lines.

Neatness in working is essential in drawing commercially for in reproduction the camera with its lack of artistic sense has a habit of picking up and enlarging all those little smudges that seem so insignificant on the original, and of making ragged and distasteful shapes of them.

This subject of lines is intended to be treated in a broad manner and covers cases of all mediums where zinc etchings or commonly called line engravings are used; that is, black and white, dry brush, grease, crayon, etc., all coming under the head of line engravings.

In order that the reproduction may be satisfactory, it remains to the judgment of the artist as to what medium to use in his final drawing. A thorough knowledge of the paper upon which the copy is to be printed is an essential requirement before proceeding with the drawing. On the following pages, you will note several different styles and types of medium, and variety

COMMERCIAL ART

of technique, with an accompanying description of how each was made, and the percentage of reduction the printed picture bears, from the original sketch.

The matter of reduction in drawing should always be taken into consideration. A drawing which is made on a very large scale with the idea of reducing it in size many times should be made very strong and open, for, let it be remembered, in the reduction of the size the lines and spaces between the lines reduce in the same proportion, so that many times what is assumed to be a strong line on the drawing, when reproduced, will seem very fine and weak. Experience in this will teach you in a very short time the relative value of the line. You will notice that while the reduction refines the defects of the drawing, it at the same time weakens the general effect as a whole. Each student will find after a certain amount of handling of the pen that some special technique will come easier than the others and he will find that eventually he will develop along that particular line, and it will become a recognizable trait in his work. Recognized artists all have their distinctive technique; that is to say, not necessarily original with them alone, but one with which they handle their work successfully. However, in doing general commercial art work the artist is called upon to illustrate so many different subjects in character, and for such a wide variety of performance, that he must be able to handle these various subjects in the technique which is best adapted to the subject

SUITABLE TECHNIQUE

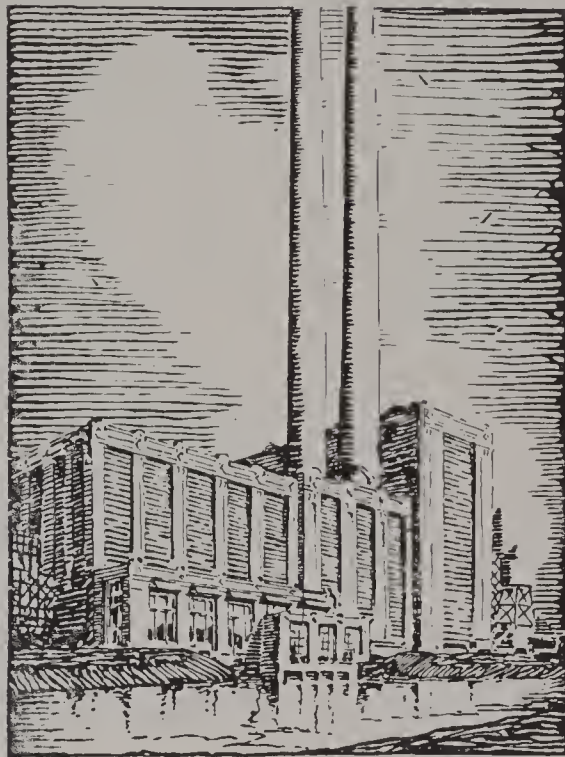


FIG. 45.

This drawing was made with a brush on smooth paper. A very good technique for buildings, as it has strength and good reproductive qualities.

COMMERCIAL ART



FIG. 46.

The drawing above was made twice this size in dry brush on medium rough paper. The one below was made 6 inches high on smooth paper. Study the highlight treatment on both.



FIG. 47.

SUITABLE TECHNIQUE

itself. For example, a mechanical subject should be handled, ordinarily, in a mechanical way. A landscape has its particular style of expression, likewise the human figure, buildings, cartoons, etc. Speaking further of the technique of drawing, one may point out that one of the common dangers to the artist is to spend too much time developing the technique of his lines or the medium in which he is working at the expense of the subject itself. The result of the finished drawing is that it seems mechanical and stiff and does not have that human-interest appeal and dramatic feeling which is essential. A drawing made in this way may be analyzed and found to be nearly perfect as to its mechanics, but the effect upon the reader of the advertisement in which it appears is not successful.

In working out commercial drawings it is usually good practice to try to throw the subject into strong highlights and shadows if possible. This makes for good contrast and strength in the illustration. By careful study of your highlights and shadows the attention can be drawn to the particular part of the illustration which you desire emphasized, thereby creating more interest and life in your illustrations. After all, the printed picture is but a series of planes of varying shades and highlights and it is therefore reasonable to assume that illustrations especially prepared for a newspaper will be the more successful, in their final

COMMERCIAL ART

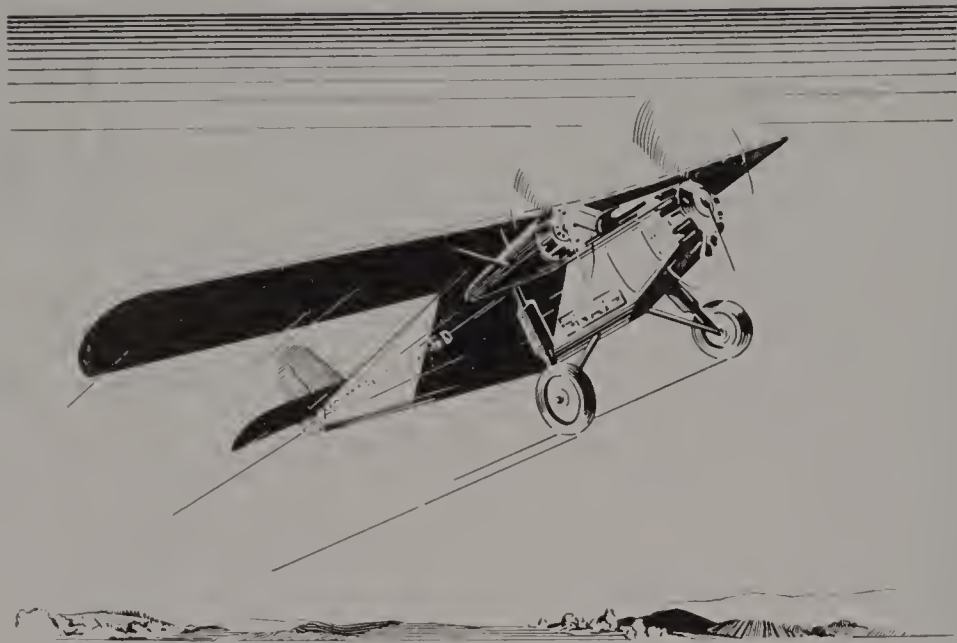


FIG. 48.

Showing the treatment of the aeroplane in a formal and informal technique. Both styles yield good reproductions.

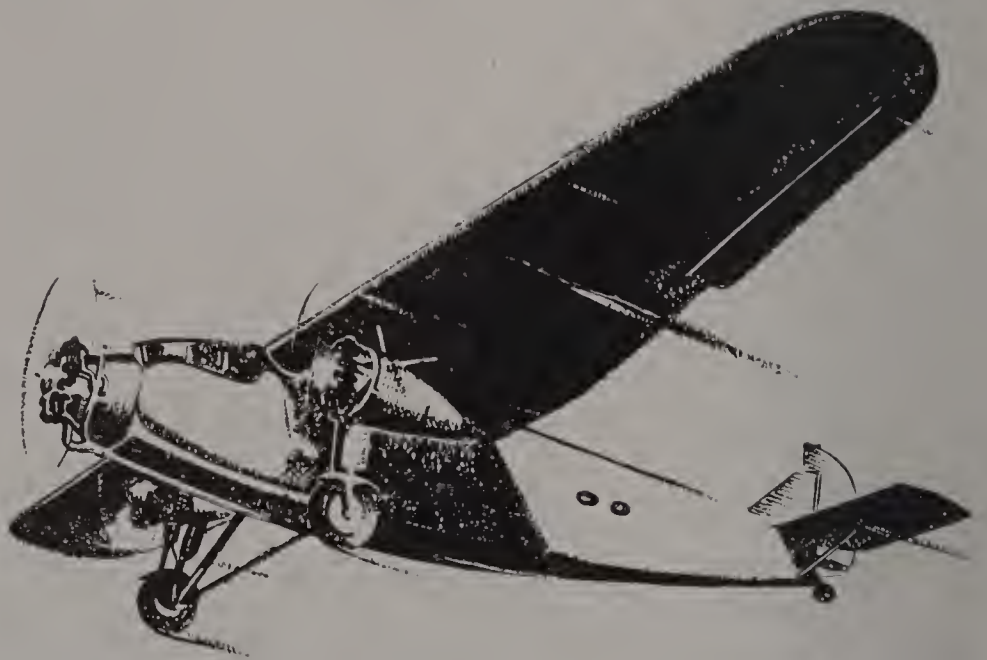


FIG. 49.

SUITABLE TECHNIQUE



FIG. 50.

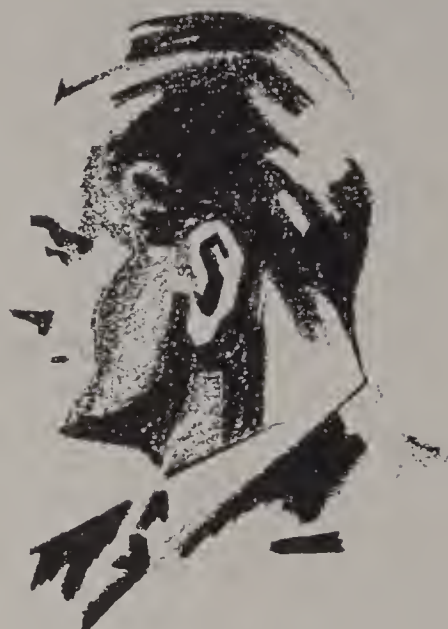


FIG. 51.

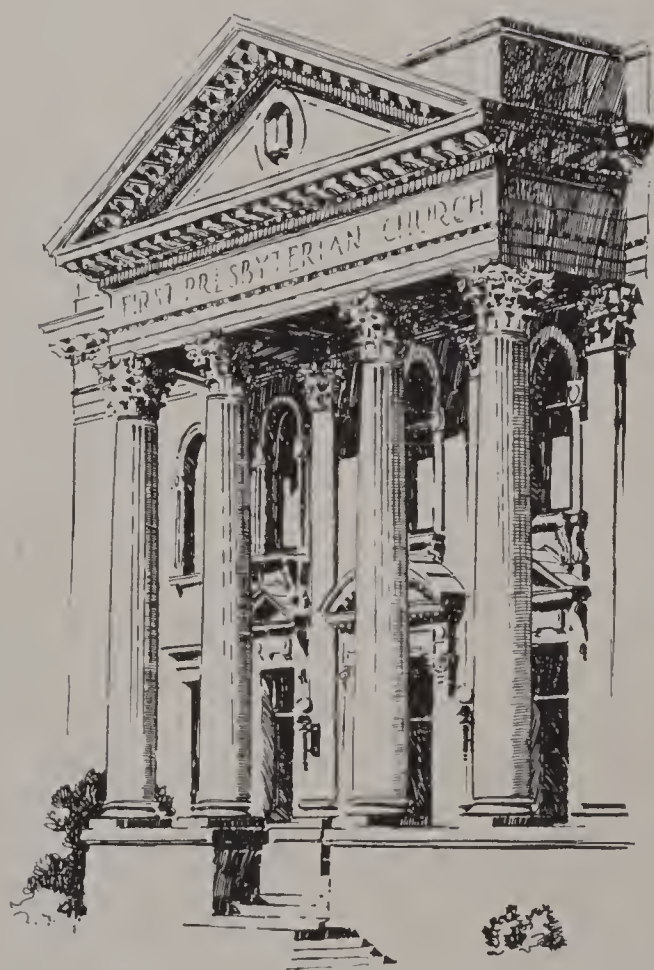


FIG. 52.

COMMERCIAL ART

stage, if they have great contrast. This might be said of all illustrations generally used.

The medium of the dry brush combines to an extent these two opposing forces in illustrations. The dry brush style affords a very forceful type of illustration and one that reproduces as a zinc etching very satisfactorily. In working dry brush the artist aims for deep shadows and strong highlights, leaving much to the imagination of the reader. When properly made, the dry brush illustration in a broad range of variety is very successful and affords tone values from almost a pen line to solid black masses.

At the beginning of your career it is well to give no thought to specialization in any particular line even though you feel inclined in some one direction. You may find through contact with the various branches in this vast field other, more appealing subjects for your future specialization. It has been the writer's observation in the many years of his practice that a beginner perfectly confident of his ability to succeed in some particular branch of commercial art will oftentimes become a specialist in an entirely different branch due to his inability to develop beyond a certain point in the first branch of his choice. This is not always due to lack of effort but usually to the lack of some particular qualification necessary to that branch, and his final specialization will involuntarily be made for him, after years of practice and the discovery of a latent ability not evident in the beginning.

SUITABLE TECHNIQUE



FIG. 53.

Showing a reproduction of the original, actual size and a great reduction of the same. Notice how the bold black treatment of the original disappears in the small reproduction.



FIG. 54.



FIG. 55.



FIG. 56.

The illustration of the golfer shows a very suitable technique, that will permit great reduction without filling up. Study these carefully and compare the original with its reduction.

COMMERCIAL ART

Many artists, to the writer's knowledge, have started as draftsmen, retouchers, or fashion artists, and have after years developed into designers, cartoonists, illustrators, or portrait painters, and apparently with no effort on their part to specialize. The matter of specialization comes about through the individual's ability to excel in the drawing of some particular subject, and his volume of work along this line increases as time goes on through his customers' seeking that subject from his pen or brush. So, for the time being, let us not think of specialization. Let us apply our wits and endeavor to the matter of drawing a few lines in the proper way in order that the engraver and the printer may be able to reproduce them in their true value, regardless of whether those lines be in the form of a picture of a box, a landscape, a cathedral, or the human figure.

The scope of illustration is not limited alone to the artist's efforts nor ability to produce drawings. Many times it is advisable to resort to the use of photographs in illustration. Certain types of merchandising requirements demand the incorporation of actual photographs for various reasons. The artist should not, in cases of this kind, try to substitute drawings, for in this era of highly developed photographs he can hardly hope to imitate the actual photograph.

The modern publication has so improved its reproductive methods, through means of its multicolor presses, expert workmanship and high-grade paper, that

SUITABLE TECHNIQUE



FIG. 57. ATTENTION VALUE.

Frequently, an illustration is used only to direct the attention of the reader to some particular part of the advertisement, and this can be accomplished by some such example as shown above. It is essential that the drawing be strong in high and low tones and simplified as much as possible.

COMMERCIAL ART



FIG. 58.

Showing a 133-line half-tone reproduction of a lithograph. The original work was done directly on the lithographic zinc with a grease crayon. The original was 15 x 25 inches.

SUITABLE TECHNIQUE



FIG. 59.

Showing a 133-line half-tone reproduction of hard-continuity crayon drawing on smooth paper. The original about 9 x 12 inches.

COMMERCIAL ART



FIG. 60. COMMERCIAL CARTOONS.

Cartoons have their place in advertising but should be used with discretion. They must be strong and simple, with not too much painstaking detail. Under ordinary circumstances the cartoon is hardly a suitable illustration as it lacks that degree of sincerity necessary in advertising, yet in many cases successful advertising campaigns depend on the cartoon for illustration.



SUITABLE TECHNIQUE



FIG. 61.

Figure 61 shows a suitable style, and proper reduction for newspaper use. The original was twice this size.

Figure 62 shows a style not successful for newspaper reproduction because of its complicated technique. The original was five times the size of this reproduction.



FIG. 62.

COMMERCIAL ART

it permits the use of very fine screen half-tones. Fine screen half-tones reproduce photographs admirably.

Scan the advertising pages of the modern magazine and you will see for yourself the increasing number of illustrations that are done photographically. The most apparent examples are those that have not felt the hand of the retoucher. Even many that appear to be original drawings were first covered as photographic studies. These studies furnish the basic idea for the composition and general outline and the finished drawing is made either by painting over the photo or making a sketch, using the photo as a guide.

The commercial artist must be capable of properly handling the photograph in his work, either as a study from which to work, or as a finished product to be used in conjunction with his drawings.

It is suggested that the artist establish for himself a classified library of photographic subjects. The purpose of this library or "morgue," as it is commonly known, will supply him with information when needed. For example, if you are required to draw a picture of a car, a horse or a snow-capped mountain, you should be prepared, by reference to your "morgue," to produce a drawing that is correct in its physical construction. The average human mind is not so constructed that it can retain a perfect mental picture, in true detail, of the thousands of objects that it is called upon to produce, without some means of refreshing it. Photographs, or half-tone reproductions of photographs, in

SUITABLE TECHNIQUE

the absence of the image itself, are recommended because of their faithfulness of detail. It will surprise you what an amount of valuable data it is possible to amass over a period of time, by consistent effort in this direction.

PART VII
Hand lettering
and its
VALUE

Good hand lettering is an indispensable branch of commercial work. Many artists specialize in lettering alone and make a life study of it; however, every commercial artist will be called upon to do lettering and should be thoroughly capable of producing it. Many times a drawing will fail to coordinate with a type-set heading, while the same drawing with a lettered heading will appear altogether different.

Hand lettering acts as an agent which makes a layout "hang together," yet if too much is used it has a tendency to make the copy "scattered." There are a great many styles and alphabets and the student should avoid mixing them.

Close observation of type and type faces not only offers constructive information in regard to how the letters should be formed, but will acquaint the student with harmonious combinations.

The popular letters of today are based on the Roman. The student will find that he will meet with failure as a hand letterer if he tries to design letters rather than follow the traditional forms. Mainly the reason for this is that modern type faces are based on Roman, and if the hand-lettered head is not in harmony with the body of the text it will appear to be a misfit. If the student will make a careful study of several type faces such as Coston, Bodoni, Garamond.

COMMERCIAL ART

SATISFACTION
IMITATION **BLACK**
EAST **MODERNE**
WINTER
JAPAN **Rugged** *smooth*
WHITE **HIGHLIGHT**
Ancient **READY**
Stout **ROUGH** **LIGHT**
Round **MAN** **bold**
english
Foreign *Slender*

FIG. 63.

Showing several styles of hand lettering.

HAND LETTERING AND ITS VALUE

Announcing **I** *In Appreciation*
Before
DISTINCTIVE
Gracefulness *Momentum*
Powerful *Christmas*
Performance *Southern* *Spirit*
For better *Beautiful*
balance **BARGAIN**
Better Automobiles
Both are Equal **UNIQUE**
Improvements *Quaint*
You'll like

FIG. 64.

Good illustrations are worthy of good hand lettering.

COMMERCIAL ART

etc., and from the larger faces make tracings on tissue, much benefit will result, in acquainting himself with their form and character. It is as important to have the "feel" of hand lettering as it is to do the drawing.

Different advertising appeal requires special treatment in lettering to suit the case.

Secure some good books on lettering and learn the fundamentals of form and character. A study of the layouts and specimens in magazines and periodicals will prove very helpful.

Due to the fact that lettering should be sharp and clean in reproduction, it is well to use a much greater percentage of reduction than in the average drawing. This is very simply done as the lettering can be made on a separate sheet of paper and the both plates tacked on the same block by the engraver. Many artists have a tendency to consider the lettering on a drawing as secondary; as a consequence, many otherwise good drawings have been spoiled by careless lettering.

PART VIII
BEN DAY
Shading
Process

Many times it is desirable to reproduce a drawing that requires a great deal of shading in order to amplify certain planes or parts. By trying to accomplish this with a pen with lines or cross hatchings, frequently the drawing will become so complicated that the effect of the finished product will not be pleasing. A very satisfactory method to overcome this difficulty is by the use of a Ben Day machine. The process derived its name from the inventor. Practically every photo-engraver has as part of his regular equipment a Ben Day shading machine or some similar mechanical shading process and is thoroughly conversant with its use. By the careful use of the Ben Day process employing screens of varying tone quality and density, many distinct and separate tones may be had from a single color. The Ben Day is invaluable in the production of zinc color work.

We will not go into the mechanics of the device as that is unnecessary, for you are interested only in the ultimate result through its use and in the possibilities that may be arrived at. However, you should know that the Ben Day shading effect is produced by the laying of a gelatine-like sheet upon which is a design charged with ink. The pattern is transferred upon the plate, producing where desired a pattern effect according to the design of the Ben Day film selected.

COMMERCIAL ART

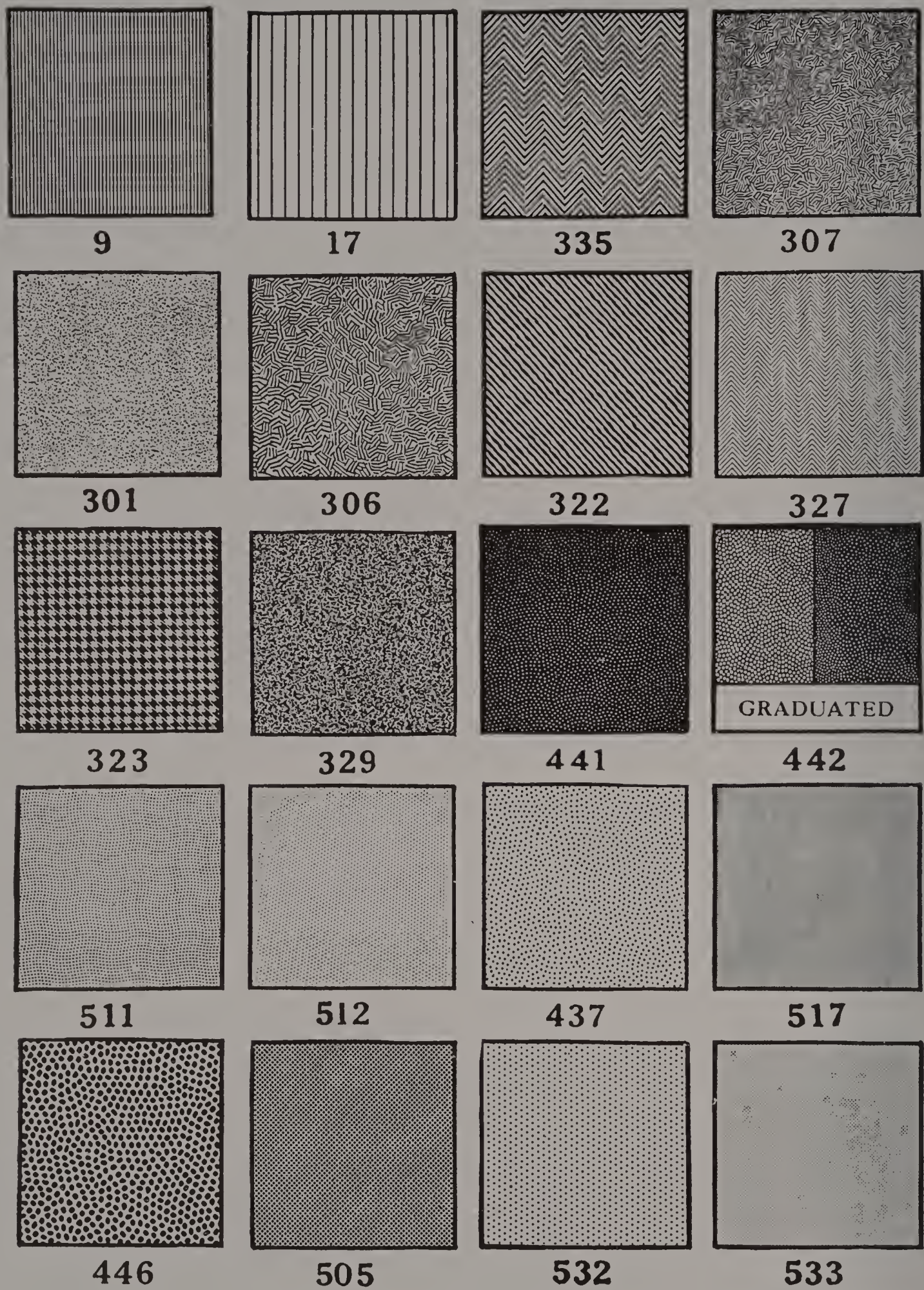


FIG. 65. *A few specimens of Ben Day patterns.*

[110]

BEN DAY SHADING PROCESS

On the opposite page will be seen a few of the designs or patterns that may be had in this process. Each pattern is numbered, and the artist when selecting the required design orders the Ben Day film to be used by marking the number on his drawing or the tissue paper flap covering the drawing. There are a great variety of patterns to be had. A sample sheet may be seen at the photo-engraver's. Undoubtedly the engraver, upon application, will furnish you a sample sheet of his patterns.

A great variety of effects can be attained by the use of Ben Day shading through combinations of various patterns. A few of the common uses for Ben Day was illustrated in the accompanying pages so that you may become familiar with its application. In making a drawing where you wish to use Ben Day shading, the portion to be covered with the pattern should be indicated with a blue pencil or a light blue wash of transparent color. It seems that the use of blue for indicating Ben Day is universal and probably the reason for this method is that blue on a black-and-white drawing does not photograph when the copy is put before the camera, but allows the black lines to be reproduced without interference. After the operator has photographed your drawing and carried it to the stage where the laying of the shading is necessary, he is then guided by your copy as to the exact place to lay the Ben Day, by the use of the blue wash. Should more than one pattern be desired in the draw-

COMMERCIAL ART



FIG. 66.

Above shows the pen drawing with Ben Day used. Below, the drawing as the engraver received it.



FIG. 67.

BEN DAY SHADING PROCESS

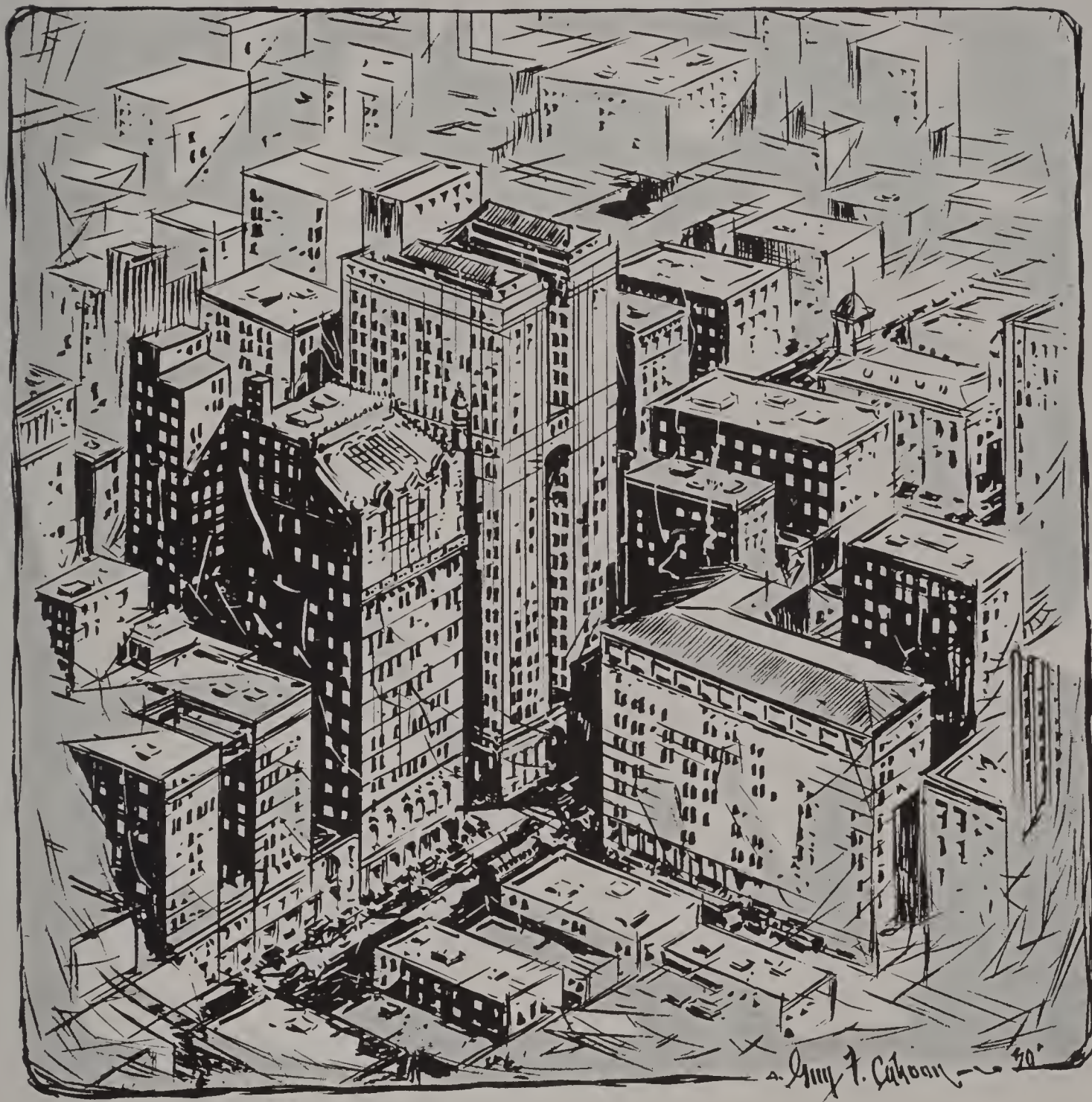


FIG. 68.

Showing a brush drawing combined with Ben Day. The indication of where the pattern should appear was shown by means of a light blue wash on the original drawing.

COMMERCIAL ART

Many very pleasing effects can be had by the use of Ben Day screens.

Figure 69 shows several illustrations of reverse Ben Day used to lighten up, or shadowtone, heavy lettering or borders. The original was made in the usual manner and instructions were given the engraver to cut the drawing with a Ben Day of a specified pattern.



FIG. 69.

BEN DAY SHADING PROCESS

ing, indication of where each pattern should appear can be accomplished by different tones of blue or the addition of a light purple. A schedule of each color and the serial number of the desired pattern should accompany the drawing. In preparing your drawing for Ben Day work it is always necessary that a guide line be used, showing the engraving operator where the Ben Day should be laid. If you desire this shading in the completed product to be without an outline, all that is necessary is to make a notation to the engraver on your drawing to eliminate the outlines on the plate. Many times these guide lines are indicated by the use of red ink. In photographing the copy, the red photographs black and gives the operator an outline to follow, then with a notation on the margin of your drawing, instructing him to eliminate red lines, he will drop these out on the finished plate. This method simplifies the work, for by the use of red he knows exactly which lines you wish eliminated. In some instances it is desirable to leave the guide lines and allow them to become a part of the drawing, but in most cases the quality of the Ben Day shading is enough to indicate its own outline.

Ben Day shading is used not only to add a tone to white spaces but, frequently, to break up the solid black areas, as is shown on one of the preceding pages. It is especially valuable in connection with lettering and border designs. All that is necessary is to make your lettering, or border, or whatever the sub-

COMMERCIAL ART

ject may be, in solid black and instruct the operator to use a reverse Ben Day screen of the design you select, either in dots, lines or cross lines. By the use of different screens many effects and tone gradings may be had.

The further use of Ben Day, and a most important use, will be taken up with respect to color plates, where it plays a very important part in the reproduction of color plates of an inexpensive character.

PART IX
Commercial Engravings
The line Etching
and Half-tone ∅

The line etching has beyond a doubt a broader field of use than any other type of engraving. The reason for its popularity lies in its adaptability from a printing standpoint. The line etching can be printed on practically any character of paper that permits printing of any kind. This accounts for its wide use for advertising purposes. A drawing executed on clean white paper with sharp black lines will reproduce in accurate detail as an exact copy, but if the drawing should contain indefinite grey lines those lines will fail to materialize on the finished product.

It is well that the student should know something of the mechanical process of producing a line etching from his drawing, as a clear understanding of the methods will impress upon his mind the importance of neatness and adherence to some of the simple rules already laid down to him. First of all, the line etching is made photographically, which fact permits of a reduction or enlargement of the drawing with no danger of alteration except that in reducing the size of a drawing the lines and the spaces between the lines necessarily reduce in their proportionate size, and the reverse holds good for an enlargement. As a consequence the drawing improves in its detail as it is reduced, but as a rule to enlarge a drawing emphasizes defects and makes the copy seem coarse.

COMMERCIAL ART

The commercial artist of years of practice usually makes his drawing from one third to one half larger than he intends that the reproduction shall appear. Of course this is a matter that rests entirely with the individual, for many artists are known to make their drawings the actual size that they expect the reproduction to be. There is no set rule for the size the drawing should be made, but the artist will find after a certain experience that to make a drawing much larger than the expected reproduction will permit him to employ a great deal more detail, or suggested detail, whichever the case may be, with less effort and less liability of cramping his style.

But, to go back to the making of the line etching. The finished drawing is attached to a copy board and is fixed firmly in front of the lens of the camera. This copy board and the camera together are usually fastened on an adjustable frame and upon the copy board are focused powerful arc lights. The operator peering through the back of the camera, in which is fixed a ground glass, regulates the distance of the camera and the copy until the image of the drawing shows of the size desired upon the ground glass. Other adjustments on the camera permit him to focus the image so that it will be sharp and clear on the ground glass.

A specially prepared photographic glass plate is then put into the camera and the image is recorded. This plate is then taken to the dark room and developed and fixed in the same manner as all plates and

ENGRAVINGS, LINE ETCHINGS, HALF-TONE

films. After this plate has thoroughly dried the emulsion side is coated over with a thin coating of rubber cement and allowed to dry. When dry, a coating of collodion is flowed on evenly and it in turn is allowed to dry. Now the film upon the glass is ready to be stripped or removed from the glass. This is accomplished by submerging the plate in a bath of acetic acid. The film removed is then placed on a glass plate but reversed from its former position. The reason for this stripping and reversing is so that the finished plate, when printed, will read right, or, in other words, will read from right to left and not print backwards.

The metal upon which the subject is to be etched and which will form your finished zinc etching after going through its several processes is a piece of zinc, in this case about a sixteenth of an inch thick, with one highly polished side. Upon this surface a coating of solution of white of an egg, or albumen, and water and ammonium dichromate is flowed. The plate is then dried over a gas stove in a dark room. This piece of zinc now has a sensitized surface and is ready for printing. It is placed in a printing frame with the sensitive side in close contact with the negative, which has been stripped and turned. The printing frame is then exposed to a powerful light for a few minutes, allowing the negative to print upon the sensitized zinc. The zinc plate is then taken to the dark room and developed and fixed in much the same manner as the original negative, but in developing all parts

COMMERCIAL ART

of the sensitized coating disappear except those not affected by the light, leaving upon the plate the image that was on the negative within which the contact was made.

At this stage the plate is inked up; that is, rolled over with a hand roller with a specially prepared ink. The plate is then placed under a tap or faucet of running water and rubbed with cotton very lightly. The zinc print is slightly warmed over a gas jet until the ink becomes "tacky," then it is dusted over with dragon's blood, or a red powder which adheres only to the part of the plate which is inked up. The plate is then held over the gas jet until the dragon blood coating melts. The next stage is to cool quickly the heated plate so that the dragon blood forms an acid-resisting coating over the lines on the plate.

You now have a plate upon which is the image of the drawing in every detail, and every line and dot that you have made is covered over with an acid-resisting compound. That portion of your drawing which was at one time white paper is now plain clean zinc about to be attacked and eaten away by the acid, allowing the lines to remain intact, which will eventually become the printing surface of your plate. The next step is to place the zinc plate in an etching machine. There are many types of etching machines, but the one in general use dashes nitric acid over the surface of the plate and etches away the portion that is not covered with the acid-resisting compound.

ENGRAVINGS. LINE ETCHINGS, HALF-TONE

The process of etching is not done all at one time. It is taken by what the engraver terms "bites." The first bite, or length of time that the plate is in the acid, is not more than half of a minute. The plate is then removed from the acid bath and dusted over with dragon blood again. The reason for these separate stages, or bites, is that acid in eating the unprotected part of the plate would have a tendency to under-cut or eat under the surface of the protected lines, but in etching by stages each time that the dragon blood is applied tends to protect the side of the line as well as the top, as the acid eats in a downward direction.

The plate is next held over the gas jet and heated until the dragon blood melts and covers the top and the side of the line, already etched a small way down. This process may be repeated several times before returning to the etching machine.

The second bite will allow probably three times the length of time of the first bite, after which the plate is removed and dusted again with dragon blood, is heated and cooled in the same manner as described before, then returned to the etching machine.

After the etching is completed, that is to say, when the operator feels that the plate is etched deeply enough for printing purposes, it is removed and the acid-resisting coating formed of the dragon blood is removed by a bath in hot lye water.

The plate as we have it now has all the lines embossed, one might say, with all spaces between

COMMERCIAL ART

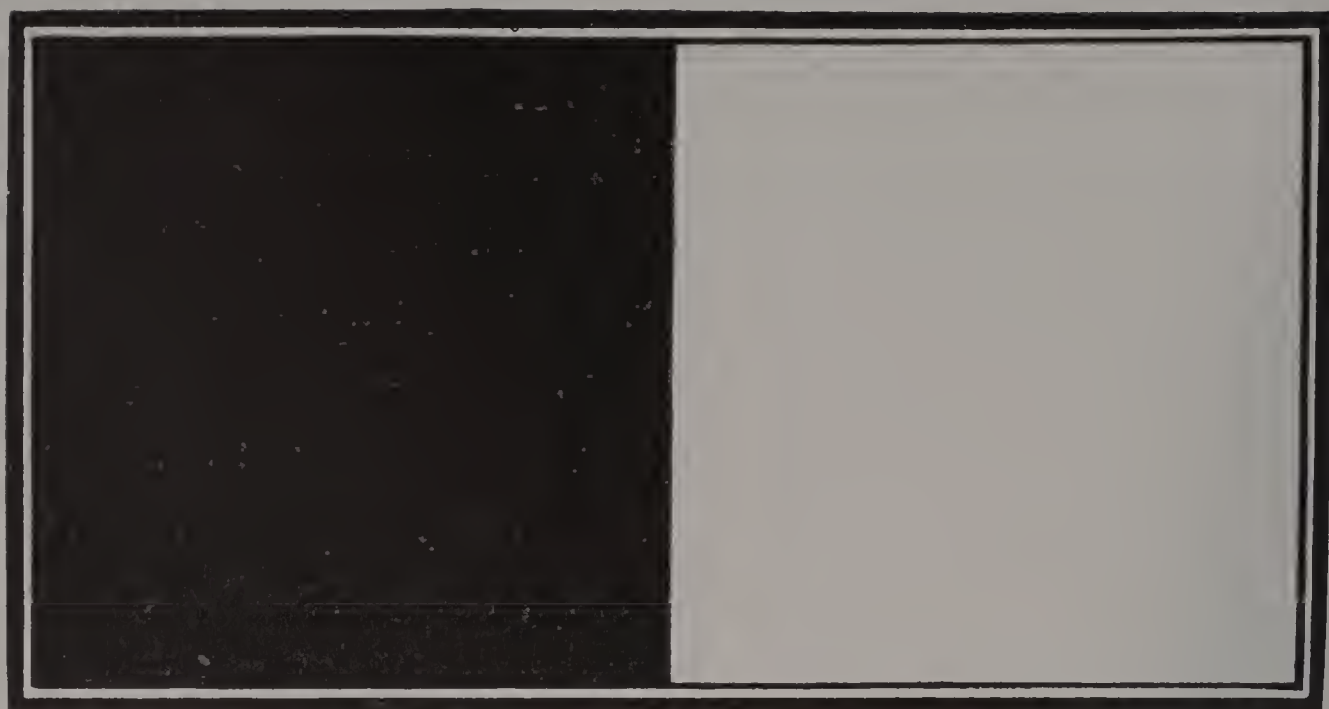


FIG. 70.

These two illustrations show the difference between an etching and a half-tone.

Above is shown the effect of a zinc etching, while below is shown a half-tone made from the same copy. The original drawing was made in solids identical with the etching reproduction. Note that the half-tone reproduces black as dark grey, and white as light grey.

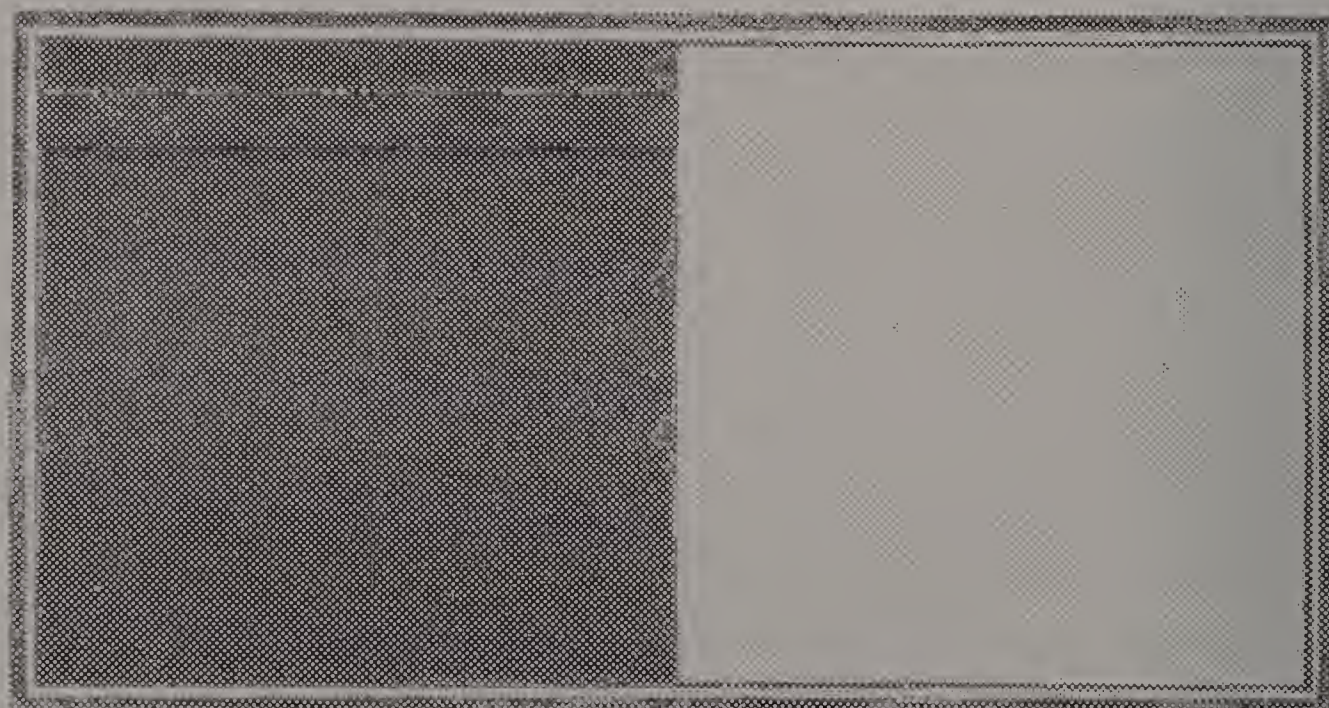


FIG. 71.

ENGRAVINGS, LINE ETCHINGS, HALF-TONE



FIG. 72.

Figure 72 shows a 45-line screen half-tone reproduction of a pencil drawing.

Figure 73 shows a 55-line screen half-tone of the same subject. Both the 45-line and 55-line screens are exceptionally good for reproducing very dark copy for newspaper use.



FIG. 73.

COMMERCIAL ART



FIG. 74.

Figure 74 shows a 60-line screen half-tone. The 60-line screen is more commonly used in newsprint.

Figure 75 shows the 80-line screen used in publications, where a slightly better grade of paper is used.



FIG. 75.

ENGRAVINGS, LINE ETCHINGS, HALF-TONE



FIG. 76.

Figure 76 shows a 100-line screen suitable for use on medium smooth paper.

Figure 77 shows a 133-line screen suitable only for use on enamel paper.



FIG. 77.

COMMERCIAL ART



FIG. 78. HIGHLIGHT HALF-TONE.

The highlight half-tone derives its name from the fact that it allows the pure white paper, upon which it is printed, to furnish highlight through the elimination of the screen dots in the white. As you know, an ordinary half-tone provides a screen over the entire surface, even where the drawing is white. The highlight half-tone is most valuable in reproducing soft pencil drawing effects where contrast is paramount, even in all degrees of tone. Compare this "highlight" with the ordinary half-tone on page 133. Examine it with a magnifying glass and you will readily see the difference.

ENGRAVINGS, LINE ETCHINGS, HALF-TONE

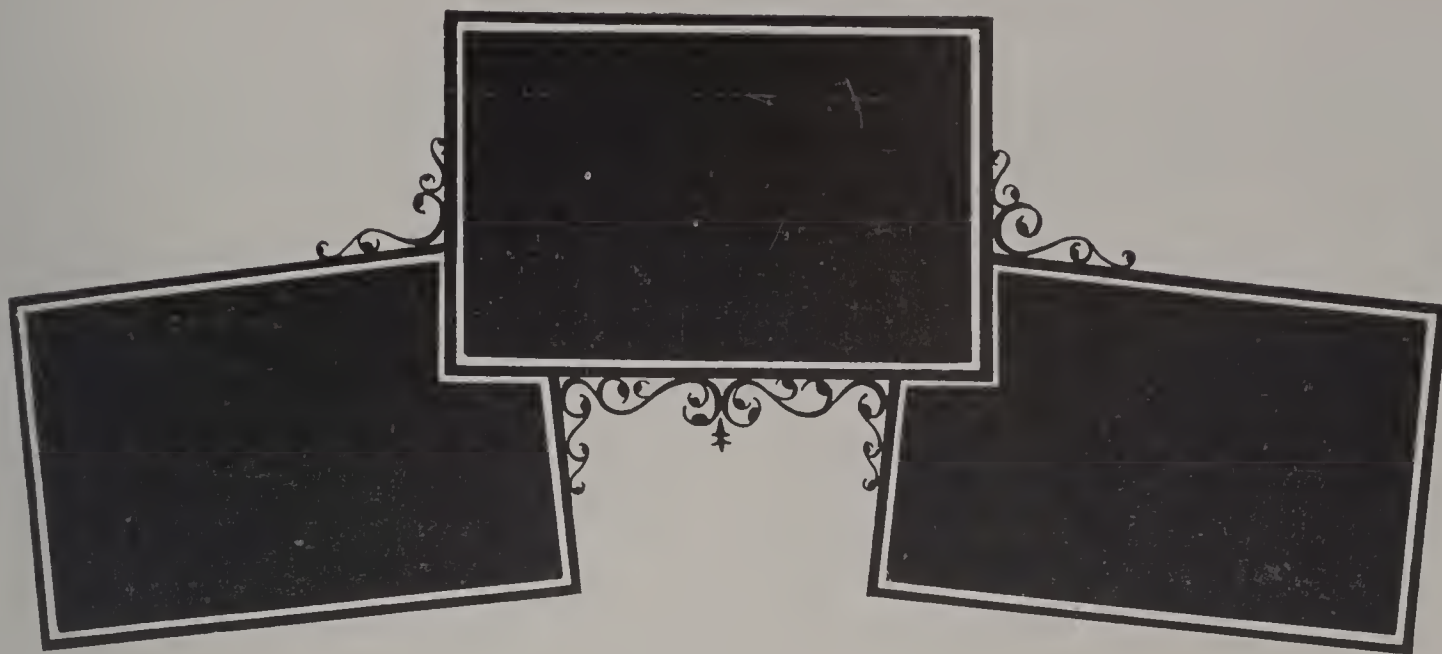


FIG. 79.

Often you will be required to make a layout of photos and be given photos of various sizes that will not stand the same reduction. This is done by preparing a drawing as shown above. Number each photo, also indicate the space it will occupy, and instruct the engraver to “strip in” photos and cut the border with a one-way screen as shown on the reprint below. The border is made as an etching while the photos are reproduced as half-tones. This is termed a combination plate.



FIG. 80.



FIG. 81. A 65-LINE HALF-TONE SCREEN OF A WASH DRAWING.

The purpose of this illustration and the similar one on the opposite page is to show the effect of highlighting a half-tone screen. The manner in which this particular one was made is as follows: A negative was made of the wash drawing in the usual manner, then the engraver made a velox print from that. The velox print is merely a paper photographic print from the negative. The difference between the print and the original is due to the fact that the print has all the tones made with dots of varying size and density.



FIG. 82.

Next, the artist, with a brush and white paint, painted out the dots in the portions he wished to appear pure white. After the highlighting was completed, the print was again sent to the engraver, and a new plate was made. This time the plate was made as a zinc etching, because the screen was already provided by the previously made print. The advantage of highlighting in this manner is due to the fact that the artist can do his own highlighting, and should he desire to change certain parts he is at liberty to do so.

COMMERCIAL ART



FIG. 83.

Demonstrating a further step in the process described on the previous page, with solid blacks added to the velox print.

By way of explanation, the darkest tone on this reproduction was solid black on the original drawing.



FIG. 84.

The solid blacks were painted directly on the velox print with a brush and black ink in the same manner as the white was handled. It is not practical to attempt this method with screens of a finer texture than 100 lines.

COMMERCIAL ART



FIG. 85. AIR BRUSH.

One of the important phases of engraving house art is the use of the air brush for retouching and making wash drawings. The principle of the air brush differs from other work, in that the color is blown on by air pressure instead of being applied with a camel's-hair brush. The use of this ingenious device requires great skill and practice, and can be properly learned only through personal contact with an operator. The above cut demonstrates the character of work produced by the air brush.

ENGRAVINGS, LINE ETCHINGS, HALF-TONE

and the part that was white paper on your drawing eaten away a small fraction of an inch. However, in the great spaces between lines the depth is not sufficient to allow the soft inking rollers of the press to ink the high surface without depositing a certain amount upon the part that must remain uninked. For this reason the routing machine is employed to remove all surplus zinc and to cut the plate deep enough in the larger spaces, so that no trouble will occur in printing.

The routing of the plate is done by a machine which employs a bit somewhat after the fashion of a drill except that it is flat on the end and cuts or mills away the metal as it is moved around in different positions. This router travels at a very high speed and it is essential that it be used with extreme care in order

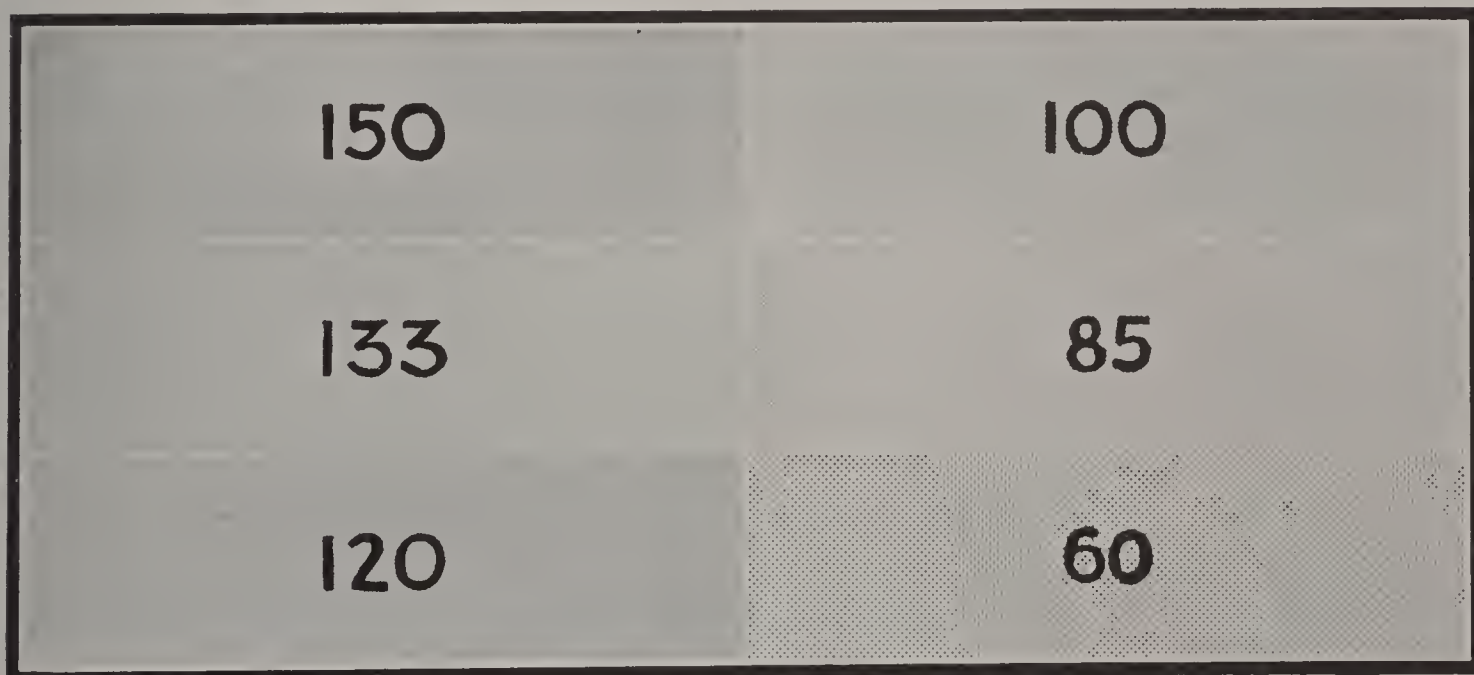


FIG. 86.

Showing several representative screen reproductions of varying sizes.

COMMERCIAL ART

that parts of the plate be not removed that were not intended.

Zinc etchings used for printing in job presses and presses of that character are mounted on wood blocks and planed off so that they are type-high. However, those used in newspapers are left unmounted because from these engravings matrices are made and it is not necessary to have the type-high mountings.

There are many processes through which zinc etchings must go, such as hand tooling, inspection, checking with the copy to see that no part of it has been etched away or removed by the router, but these are all a matter of detail, and from the standpoint of a general understanding of the manufacture of an etching need not necessarily burden the mind of the student.

The half-tone differs from the etching in that it is made up of a series of dots and permits all intermediate tones other than black or white. Photographs, wash drawings and all copy that contains tones other than black or white must be reproduced by a half-tone negative. This is done by photographing the copy through a screen made up of two pieces of glass, upon the surface of which are ruled fine lines. These two pieces of glass are cemented together at right angles, forming a screen effect.

PART X
drawing for
C O L O R
reproduction

The subject of drawing for reproduction in colors is very broad and would require many volumes to cover it, but we shall endeavor to go into some of the various processes briefly. The classification includes drawings made in black and white and printed in colors from zinc etchings or half-tones, drawings made in black and white and colors combined with the Ben Day shading process, or with the outline and Ben Day process alone, and drawings made in full color, and reproduced for printing in the actual colors used on the drawing. There are many other processes, but space will not permit us to treat more than briefly upon these others. The simplest form of color work, of course, is the illustration consisting of one plate printed in some color. This might be a plate that would be used in a newspaper, or anywhere for that matter; the only difference being that instead of printing with black ink it would be printed in a color. Regardless of what color the plate is intended to be printed in, the original drawing would be made in black and white just as if it were intended for black-and-white reproduction. Next comes the combination of two colors: We will say, for example, black and orange, a very popular combination. On page 147 you will see several different treatments of two-color combinations.

COMMERCIAL ART

Every color job must have what is termed a key plate. The key plate is usually a black plate or, if black is not used, let it be the plate which carries the greatest amount of detail and outline. Then, the second color may be termed the tint, so that the two plates will be known as the key plate and the tint. Figure 87 shows a key plate printed on a solid tint background, a very simple form of two-color work. In this, the drawing consisted only of the portion which is shown black and a fine line outline around the black drawing to indicate the size of the tint. This line was removed from the black plate. Figure 89 shows the black plate printed over the tint, with highlights and tint plate showing through the black key plate. The drawing for this was made in the same manner as for Fig. 87, except that an indication was given to the engraver as to where the tint should appear, by either coloring the drawing in the required portions with a light blue wash or by an indication on a tissue paper overlay with the same instructions on it. Mention was made of indicating on your drawing by painting with light blue paint or stain. This color of course should be transparent, so that it does not cover any of the black line. The blue does not photograph in the process of making the plate, and serves only as an indication from the artist to the engraver of some portion of the plate which is to be treated in a special manner, as is suggested in the chapter on Ben Day tints. In that case, the blue indicates where a Ben

DRAWING FOR COLOR REPRODUCTION

Day screen is to be laid. If two different and distinct tones of blue are used, and a key or schedule accompanies the drawing, indicating that one tone is to be of a certain pattern and the other is to be of some different design, the engraver immediately knows what portion of the drawing receives the intended treatment. In preparing black-and-white drawings for color work that is not too complicated, several different colors may be indicated on the black-and-white drawing by the use of as many different tones of blue. Where flat tones of color are used, the engraver makes as many prints as there are color plates in the set, one plate for each printing color. These are all prepared from the same negative, so that when the final series of plates are completed they will all be of an exact size and will fit or register perfectly. It is possible for the engraver to produce these plates in flat colors from your black-and-white drawing, provided he receives clear and comprehensive instruction as to just where the colors should fall. At this point it might be well to give the student some information as to some of the things not to do. For example, in Figs. 87 and 89, if you desire the ultimate result as shown printed, don't paint your drawing in orange as you expect the finished proof to be, and expect the engraver to make the black plate, for the orange photographs almost as deep as the black; consequently you would get a black square; use blue for your indication. If you wish to in-

COMMERCIAL ART

dicating the exact colors in the relative position they will occupy, do this on a tissue paper overlay on the black drawing. In your instructions to the engraver do not fail to explain clearly just what is wanted. This can be done on the tissue paper flap over the black drawing; treatment of the different parts should be clearly indicated. It is always well to be very clear and explicit in your directions, leaving nothing to the imagination. In cases where the key plate contains considerable small detail, portions of which are printed in the tint with the surrounding portions left white, the term "hair-line registration" is applied. This term gets its name from the need for extreme care that must be taken in making the plates and in registering the plates on the press, in order that the color may fall exactly within its bounds.

As the student should always be on the alert to avoid getting into difficulty, it is well to try to design your color work with as little hair-line registration as possible. This of course is not always practical without impairing the effectiveness of the drawing, but it is well to avoid any unnecessary complication. In Fig. 89 the solid portion in which you see the orange lettering is not considered as hair-line registration, because of the fact that the black plate "overprints" a solid orange plate of a slightly smaller size and the orange lettering is effected by white lettering in the black plate. The aeroplane at the top of Fig. 89 is considered a hair-line registration because of the fact

DRAWING FOR COLOR REPRODUCTION



FIG. 87.

Aside from printing a single cut in one color, the most simple form of two-color work is that of printing a complete illustration on a solid tint background. From the standpoint of the artist, engraver and printer, this is the least expensive. The artist makes his drawing as he would a one-color drawing, the engraver cuts a tint-block to fit without etching it, and the printer has no hair-line register to contend with.



FIG. 88.

COMMERCIAL ART

that in several instances the orange is bordered by only a thin line of black.

There are many ways of producing these drawings, as you may know and will discover later, but the method of working from black-and-white drawings with tissue paper overlay with color indicated thereon is the favorite for the beginner. Otherwise he is apt to become involved, before the completion of his work, to such an extent that it may be necessary to discard the drawing and start a new one.

Remember that in making drawings for color work, where black-and-white originals are employed, you do not use on your drawing the color that you expect the plates to be printed in. You merely make a comprehensive chart, and outline or indicate where the colors should appear, and the engraver does the rest. This is the reason why so many original drawings for color reproductions appear so different from the result that is finally obtained. Yet a close study of the mechanics of engraving will show you why this must be. The matter of color harmony and printing in color is a subject which should be studied very carefully. Color is being used more each day, where it is practical, for, by the use of colors, reactions and effects may be obtained that would be entirely impossible in the black and white. Naturally, reproduction in color is more expensive than in black and white, and this fact curtails the use of color in many cases. In other instances, as in newspapers and some other publica-

DRAWING FOR COLOR REPRODUCTION



FIG. 89.

Illustrating a simple form of two-color plates. The original was made as a "black and white" and instructions issued to the engraver to make the lettering in orange and with an orange tint under the aeroplane. The orange lettering was made by running an orange tint under the entire black background through which the white lettering appeared. The color on the aeroplane also exists under the black.

COMMERCIAL ART



No. 1



No. 2



No. 3

FIG. 90.

The illustrations shown on pages 146 and 147 are examples of a few of the many possible combinations to be had from one black-and-white drawing. The "black-and-white" shown in Fig. 91 at the lower left-hand corner is an exact reproduction of the original from which all of these various combinations were made. In each case, all that was necessary was a tissue flap over the "black and white" with instructions to the engraver. By way of explanation, some of the instructions were as follows: For No. 1,



FIG. 91.

"orange border, solid tint on face, ribbons and head band, Ben Day tint on head gear." For No. 2, "black border lines of background in tint, headgear solid tint." For No. 3, "black border, cut lines of background with one-way 65-line screen, lines of headgear solid orange, solid orange tint under black for ribbons and band, 100-line Ben Day tint and black on face."



A

B

C

FIG. 92.

Figure 92 shows further possible combinations. A; B and C indicate treatments to be avoided wherein the balance of color values is unsatisfactory. Observe that in cases where the key plate does not carry enough strength of detail, the result is weak, and lacking in color harmony.

COMMERCIAL ART



FIG. 93. TWO-COLOR ZINCS. BEN DAY USED FOR TINT.

Illustrating a two-color specimen, with Ben Day used on the tint plate only. Two tones of Ben Day were used to get the two distinct values. This type of two-color work is not difficult to print as the green tint extends back of the black. The original drawing was made twice the size of this reproduction.

DRAWING FOR COLOR REPRODUCTION



FIG. 94. "BLACK AND WHITE," FOR TWO-COLOR ZINCS.

Above is an exact reproduction of the original drawing reduced one half. The circle outlining the moon, border lines, and line of the horizon were made to guide the Ben Day operator where to lay his screen. After the pattern was laid, the lines were eliminated on both plates as is shown on the opposite page. Information was given to the engraver, by attaching a rough sketch of the color effect desired.

COMMERCIAL ART

tions, it is impractical to use color because of the mechanical difficulty. Then we must content ourselves with black and white. The printing of color plates on white paper is very simple from the standpoint of judging what the effect will be, but the use of the same plate, printed in the same colors, on variously tinted or colored paper renders an entirely different effect, and requires a thorough knowledge of its possibilities. There are many text-books on the use of color in printing, color harmony, and color combinations, which it would be well for the student to become thoroughly conversant with as an aid to his career as a colorist. However, in this text we take up the production of drawing only, for color work, and leave the selection of colors and color combinations for another time because of the lack of sufficient space to cover such a tremendous field.

It is not advisable for the student to endeavor to produce color work of too complicated a subject until he is thoroughly familiar with the making of drawings for black-and-white reproduction. However, there are certain types of color work that can be done very simply and very effectively. By the association of such simple subjects the student will develop his own resources and inventive powers and be able to develop quite rapidly.

DRAWING FOR COLOR REPRODUCTION



FIG. 95. THREE-COLOR ZINCS. BEN DAY USED ON TWO-TINT PLATES.

Illustrating a three-color set with Ben Day on the two tints. Solid green was used for the foliage with a Ben Day screen for the sky and water. The tree trunk carries a Ben Day on the orange plate. The strip at the base of the tree that appears to be a tone of brown was obtained by a Ben Day on both the green plate and the orange plate. The bills of the birds are in solid orange.



FIG. 96. "BLACK AND WHITE" FOR THREE-COLOR ZINCS.

Showing a reproduction of the line drawing as it went to the engraver. Observe that in this drawing the entire composition is formed with lines, and there are no solid blacks; consequently a border line is not out of harmony, as would have been the case with the picture on pages 148 and 149. No lines were eliminated from the original copy; each line served as a part of the picture as well as a guide for "tint laying."

DRAWING FOR COLOR REPRODUCTION



FIG. 97. THREE-COLOR ZINCS. SOLIDS AND BEN DAY USED ON TWO-TINT PLATES.

In this illustration "solids" in all three colors play a very important part. Ben Day screens were used in both the green and orange plates. This makes a very effective type of illustration, because of its contrasts. Notice how much the white sleeves on the elf contribute to the contrast; place your finger over this part and see for yourself how much "snap" the picture loses through its absence.



FIG. 98. "BLACK AND WHITE" FOR THREE-COLOR ZINCS.

Above is a reproduction of the drawing, done in "black and white," as it was received by the engraver. Again in this subject the guide lines shown on the original were removed on the finished plates. The "solids" would not permit the use of small lines for a border, as would the example on pages 151 and 152.

Engraver's instructions in this case were furnished in the form of a carefully made "color rough."

DRAWING FOR COLOR REPRODUCTION



FIG. 99. TWO-COLOR ZINCS. SOLIDS WITH NO BEN DAY.

Frequently drawings are made for one-color reproduction and later the customer will decide to add a second color to his printing with the request that the illustration be treated accordingly. The element of time will prevent the making of a new drawing for the purpose; however, in most cases it is a simple matter to prepare your present drawing for a suitable reproduction in color. Notice the absence of the sky and border, which were on the original shown in Fig. 100. In this case it was a requirement of the customer and was accomplished by a simple notation on the tissue flap over the drawing.

COMMERCIAL ART



FIG. 100. "BLACK AND WHITE" FOR TWO-COLOR ZINCS.

Figure 100 shows a reproduction originally made to appear in one color, but upon request for the addition of a second color the procedure was as follows: A tissue flap was attached over the drawing and the portion of the subject to be printed in the tint was indicated thereon. By the use of the tissue flap many trial color schemes can be made before a final decision is arrived at, without impairing the reproductive qualities of the original drawing.

DRAWING FOR COLOR REPRODUCTION



FIG. 101. THREE-COLOR ZINCS. SOLIDS WITH NO BEN DAY.

A three-color specimen with all colors done as "solids," made from one "black and white." The original drawing "carried" only the black plate, and made, as explained in the previous pages, for black-and-white reproduction. Many effective treatments can be produced by experimenting with colors on a black-and-white "proof." It is suggested that you secure several engraver's proofs of a suitable subject you have drawn and try your skill at color combinations.



FIG. 102. "BLACK AND WHITE" FOR THREE-COLOR ZINCS.

Above is the reproduction of the "black and white" used to produce the three-color poster effect shown on page 157. It is advisable, in many instances, when working out a complicated "color," to order a "silver print," or photostat, made of your subject, upon which you can produce the color scheme you desire. This will permit you to furnish a very definite and concise guide to the engraver.

DRAWING FOR COLOR REPRODUCTION



FIG. 103. DUOTONE.

Many subjects can be reproduced by the duotone process quite successfully, especially in cases where the subject is quite pronounced in any one color. In a landscape wherein the trees predominate, the black plate will carry the body and mass of the picture and green used is as the second color. In the case of a sunset casting a red tint over all objects, again black is used as the key but is superimposed over red.

COMMERCIAL ART



FIG. 104. RED PLATE FOR DUOTONE.

Considering the fact that the type matter which is used in conjunction with the picture is in black, the duotone necessitates but one extra press run. In all color printing the true color of the inks can be maintained through use on white paper only. It is not meant that color printing on colored paper is not successful, but on the contrary, many of the most pleasing effects are obtained in that way. The artist should take into consideration, however, the color of the paper and choose ink that complements it.

DRAWING FOR COLOR REPRODUCTION



FIG. 105. AN EXAMPLE OF FOUR-COLOR PROCESS PLATE MAKING.

The three colors used in half-tone process color work are: Yellow, red and blue. With these three primary colors with the addition of black it is possible to produce almost any secondary color.

In the preparation of the drawing for this type of plate making, the artist paints his picture in full color.

The "copy" from which the above was made contained all the colors shown in the finished reproduction. The separation of colors was done photographically by the use of color filters. By a careful study of each of the color plates you will observe how each color forms itself in varying tones. Inspect the reproduction on this page with a powerful magnifying glass and note the dots on each of the color plates, and how the secondary tones are formed by their combination.

COMMERCIAL ART



FIG. 106.



FIG. 107.

DRAWING FOR COLOR REPRODUCTION



FIG. 108.



FIG. 109.

COMMERCIAL ART



FIG. 110.



FIG. 111.

DRAWING FOR COLOR REPRODUCTION

FIG. 106.

The yellow plate is made by photographing the picture through a violet filter, while the red plate is obtained by using a green filter. It is necessary in most cases that a great deal of hand work be done on each plate to produce the best results; this accounts for the increased expense in this class of plate making.

FIG. 108.

When the red plate is printed over the yellow plate the result is as Fig. 108. In printing color process plates, much care must be exercised that they register perfectly, otherwise the result will not be pleasing. The blue plate shown as Fig. 109 is produced by photographing the picture through an orange filter.

FIG. 110.

Printing the blue plate over the yellow and red reproduction shown in Fig. 110 completes the three-color set. Many pictures are reproduced in three colors alone and some very successful results are obtained; however, the addition of the fourth plate, or black, adds strength and sharpness to the detail and supplies grey tones not possible with the three primary colors alone. Four-color process plates are as a rule printed as follows: Yellow, red, black and blue.

COMMERCIAL ART



FIG. 112.

Figure 112 shows the three colors in their full strength, used for printing process plates. The arrangement of the discs, overprinting each other, further illustrates the color combinations to be had by superimposing one color above the other.

DRAWING FOR COLOR REPRODUCTION

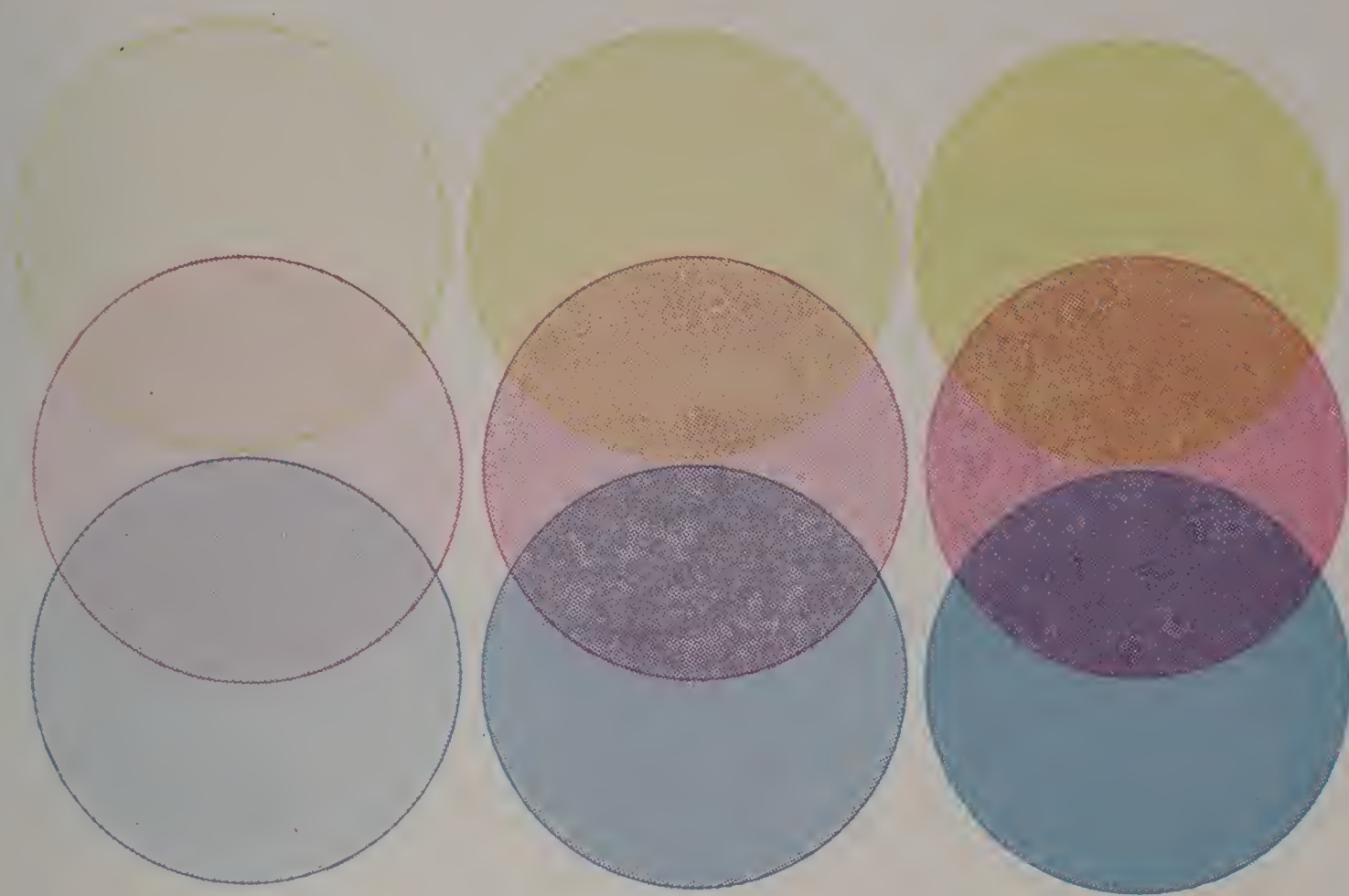


FIG. 113. BEN DAY.

Figures 113 and 114 show several tone values to be obtained through the use of Ben Day screens of varying density. Study Figs. 115, 116, 117 for color value of the various Ben Day patterns.



FIG. 114.

COMMERCIAL ART

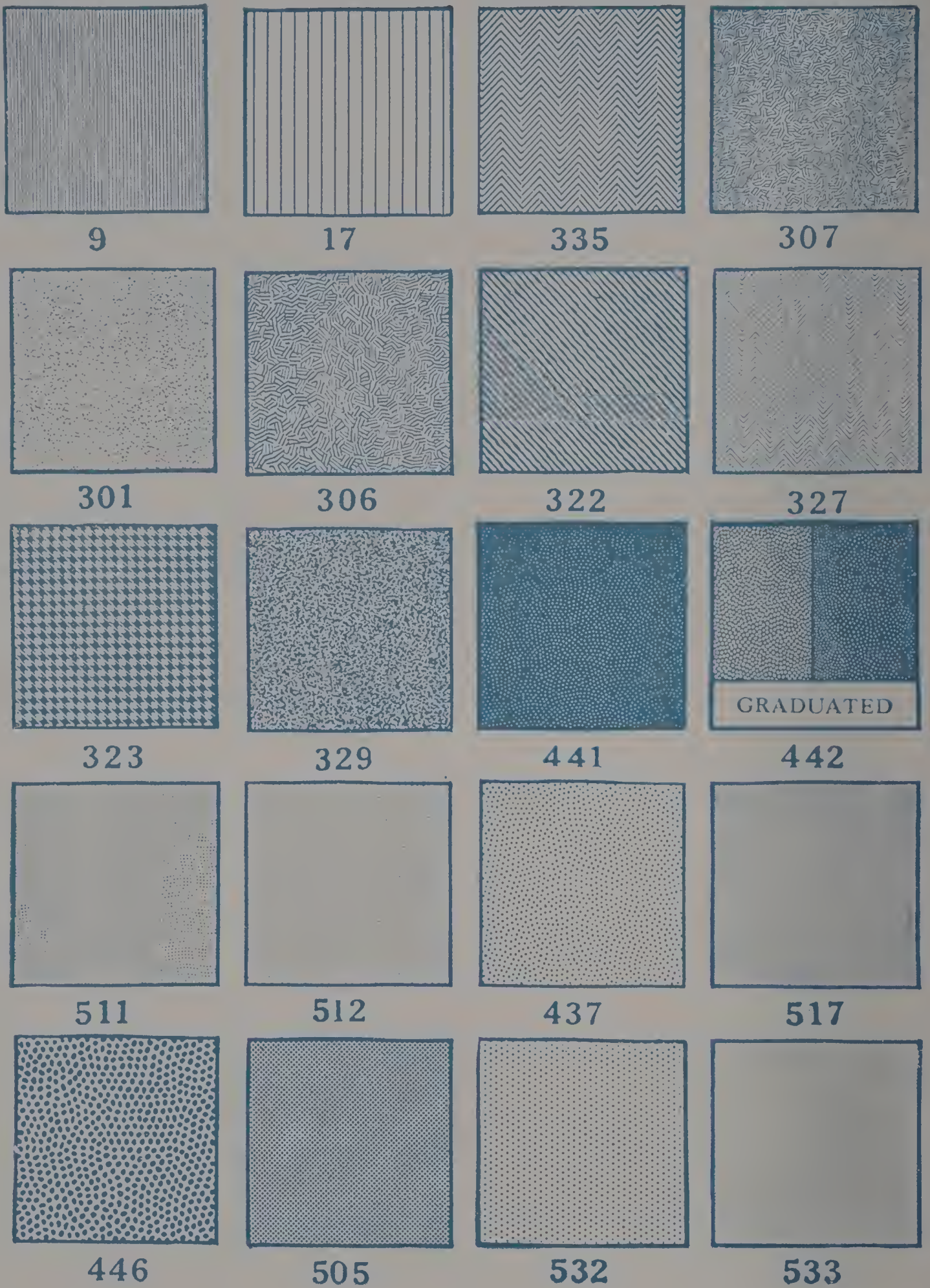


FIG. 115.

DRAWING FOR COLOR REPRODUCTION

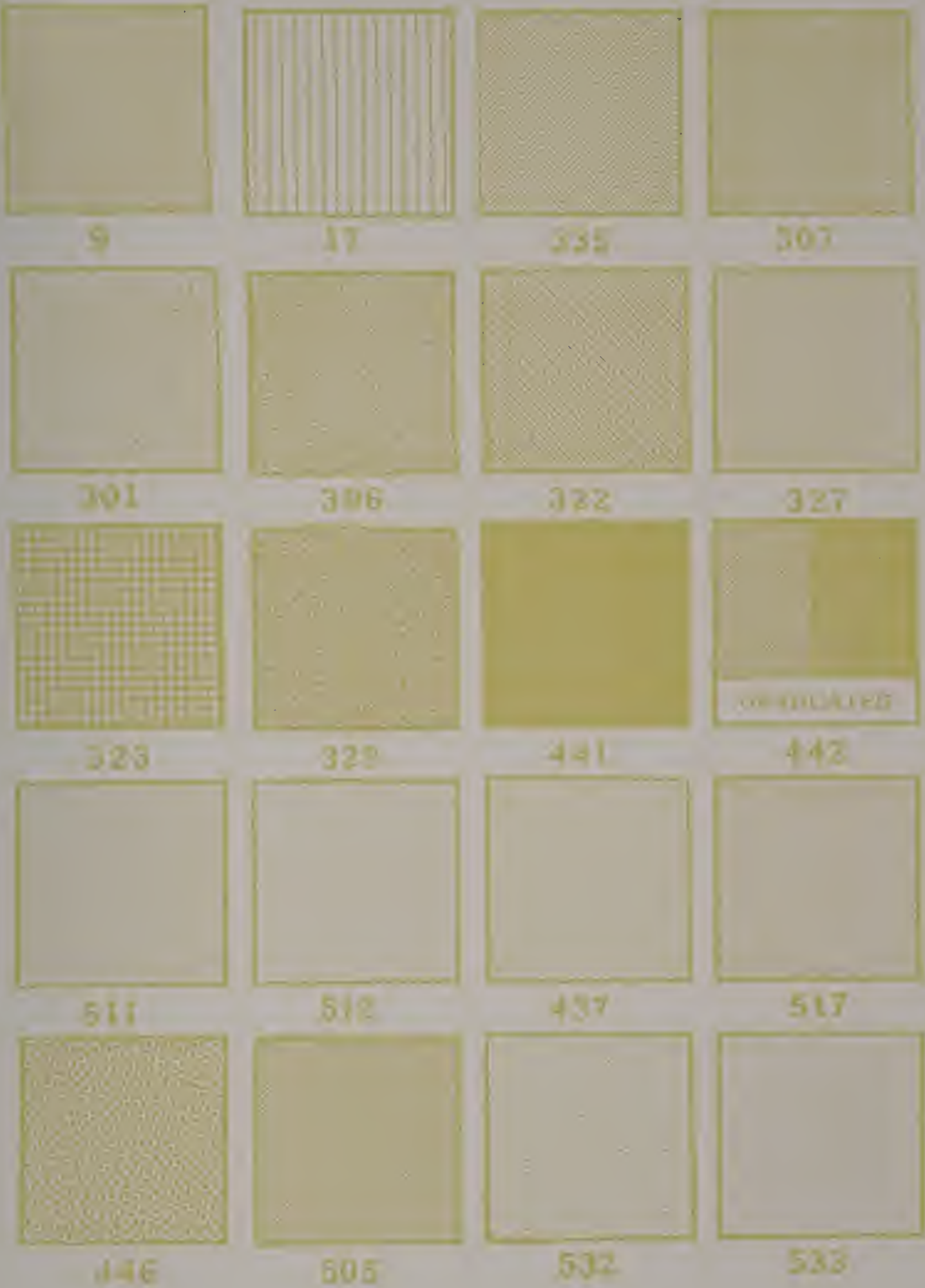


FIG. 116.

COMMERCIAL ART

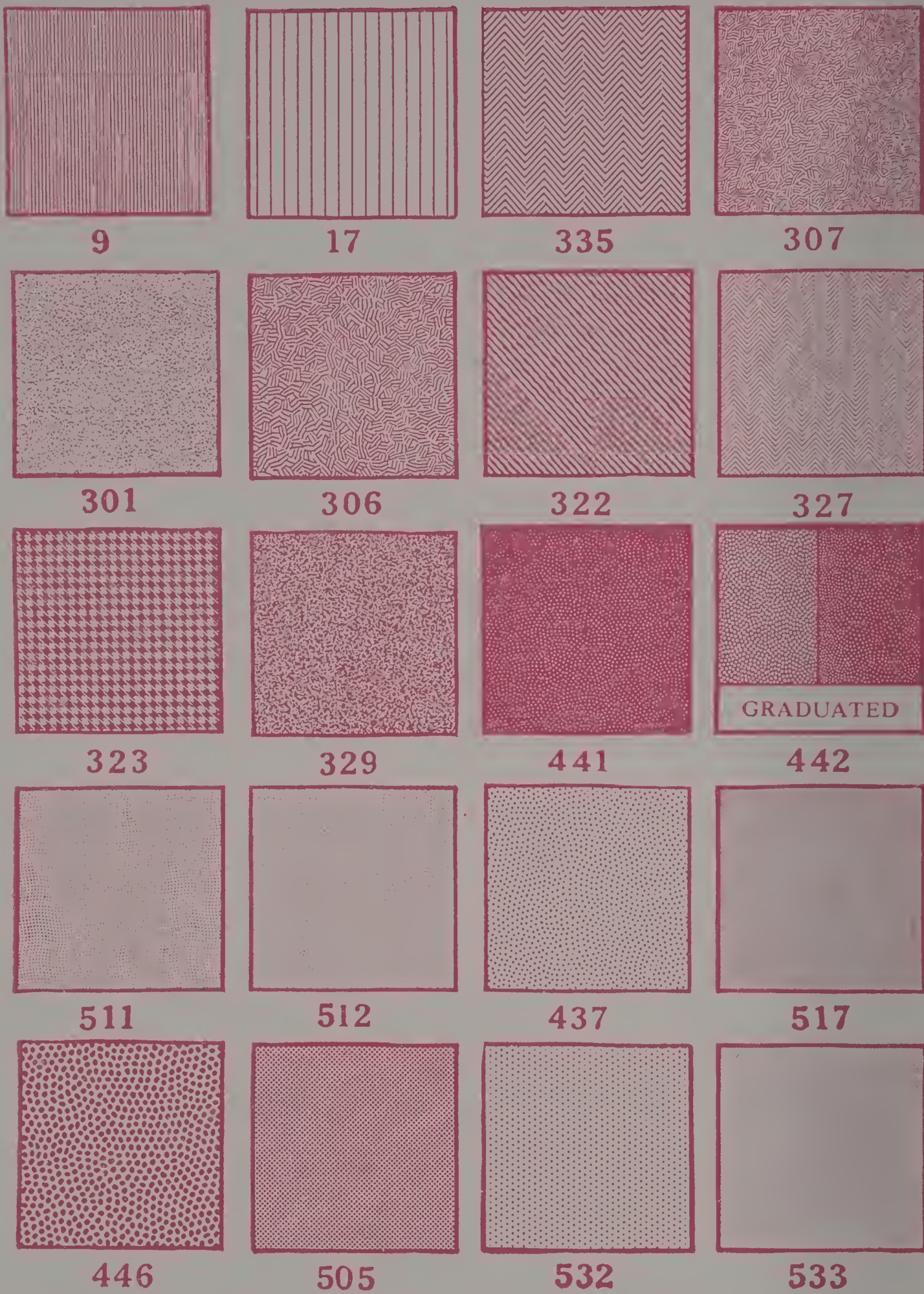


FIG. 117.

DRAWING FOR COLOR REPRODUCTION

FIG. 115.

The purpose of printing the Ben Day patterns in various colors is to acquaint the student with the value of tone of each pattern when a different color is used.

FIG. 116.

Notice in using yellow on the Ben Day how the darker patterns increase in depth while the lighter ones lose a certain amount of their strength.

FIG. 117.

The relative tone values of Ben Day screens, in varying colors, should be considered in the selection of the pattern, as much depends on their proper relation to each other.

GLOSSARY OF WORDS AND TERMS USED IN THE PHOTO-ENGRAVING BUSINESS

*Adopted by the American Photo-Engravers Association.**

Aberration—Convergence to different foci. Term used to denote faulty or incorrect focus of lines and colors.

Achromatic—Without color. A lens which refracts light of all colors equally is said to be achromatic.

Acid Blast Etching—A process for the mechanical etching of photo-engraved plates.

Acid Blast Machine—A mechanical contrivance in which an etching solution is driven by powerful blowers through a system of sprayers arranged in the base of an acid chamber and directed into the surface of the plates held in an inverted position against the spray in the upper part of the compartment.

Actinic — Chemically active but mostly invisible light rays as distinguished from visual rays. The rays which act upon photographic emulsions.

Air Brushing—A method of placing smooth, tint surfaces on a photograph or wash drawing by an invention by which a liquid pigment is blown in a spray through a tool by aid of compressed air.

Anchoring—Fastening plates on to wood blocks by metal columns through the back of block.

Aquarelle—French word for a water color painting made in tints of pure color, without the use of white or other body color.

Autochrome—Lumiere plate used for making photographs in natural colors.

Backing Up—Covering the back of a photographic plate with an opaque, light-absorbing medium, to reduce halation. Also, a metal backing soldered to printing plates to make them 11 points (0.152") thick for use on patent blocks or printing bed bases.

Base—Synonymous with block.

Bassani—The name of the inventor of apparatus applicable to a process camera by which the halftone screen may be decentralized and rotated during exposure.

Bearers—Excess metal around or within the printing area of a plate. Also called dead metal. Also strips of metal sometimes placed at sides of plate when hand inking and proofing.

Ben Day—A method for laying tints (composed of dots, lines and other textures) on negatives, metal prints or copies. Ben Day was name of inventor of process.

Ben Day Plates—Plates made by laying tints on copper or zinc and etching them to produce textures, colors or combinations of colors when printed.

Bevel—Machined straight edge margin of plate used as flange for mounting plate on block.

Beveling—Plates that are rectangular are put on beveling machine making an eighth of an inch channel, this being used to nail plates on wood. Black and white lines are also put on plates with this machine.

Bite—Trade term for etching on metal plate.

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GLOSSARY OF WORDS AND TERMS

- Black and White**—Term used to distinguish between monochromatic and polychromatic subjects.
- Black and White Line Finish**—A fine black finish line separated from the edge of the halftone by a white line of equivalent thickness.
- Bleach Print**—A silver print used as a basis for a pen drawing. The photographic tones being readily bleached out by the application of bichloride of mercury or other bleach.
- Bleed**—Area of plate or print extending beyond edge to be trimmed.
- Block**—Wood or metal base on which plate is mounted.
- Blocking**—Fastening the plate upon a wood base.
- Blocking Flush**—Trimming block flush on top, bottom, sides or all around, so that printing surface is flush with the block.
- Blue Print**—A sensitized photographic paper yielding a blue and white print upon development; also trade name for a stained blue unburned print on metal.
- Border**—Finishing line or design on plate.
- Burr**—Metal turned up above printing surface by routing cutter or other tool.
- Burnishing**—To rub plate with polished steel burnishing tool to darken printing area of plate, by spreading dots.
- Camera**—Light-tight box, consisting usually of front and rear element joined with bellows, and provided with means for attaching lens at front end and plateholder at rear end.
- Chalk**—Magnesium carbonate in block or powder used to fill in etched areas of plate to show tone values.
- C. P.**—Abbreviation for "Chemically Pure."
- Chewed**—Shop term for the ragged effect of the lines of a plate caused by acid working through an imperfect protection.
- Chromium Plated**—Printing Plates upon which an electrolytic deposit of chromium has been made to provide greater wearing qualities.
- Circle**—Term denoting shape to which plate is to be cut. (Plates so ordered should carry clear instructions as to finish—such as—no line, hairline, no white, hairline, fine white inside. "Special line" should be accompanied by sample.)
- Coated Paper**—Paper having a wood-pulp or rag base, coated with clay composition on one or both sides.
- Cold Enamel**—Bichromated Shellac or other colloid. An acid resist photographically applied to metal. Does not require heating or burning in.
- Collodion**—Pyroxylin (nitrated cotton) dissolved in alcohol and ether.
- Collodion Emulsion**—Collodion containing silver haloid in suspension.
- Collodion, Negative**—Collodion containing haloid salts used for wet plate photography. Requires sensitizing in silver bath.
- Collodion, Stripping**—Plain collodion containing castor oil used for coating wet plate negatives to strengthen film before stripping.
- Color Artists**—The term applied in some localities of the photo-engraving industry to designate Film-Layers or those skilled in the laying of tints from the Ben Day or similar patterns. The more fitting designation is Ben Day Artists and the work of their department is generally known as Ben Day work, although in many cases it may not involve the actual laying of tints, some classes of work being largely of a solid color nature involving the "painting in" incident to the separation and diversion of a color scheme into a number of color plates.
- Color Filter**—A colored substance such as glass, dyed gelatine or colored solution, used to absorb certain colors and transmit others.
- Color Guide**—Graphic instructions for color rendering or placement.

GLOSSARY OF WORDS AND TERMS

Color Proofs—Proofs of color plates combined and registered.

Color Proofs—Progressive—Single proofs of each plate of a color set and combined proofs showing result of each successive color printed and assembled in printing sequence.

Color Separation—Separation of colors in negative making by means of color filters, and in plate making by means of drawing upon the plate with acid-resisting paint.

Color Work—General term for color plates to print in two or more colors.

Color Work—Ben Day—Any Ben Day plate used in conjunction with a color set.

Color Work—Process—A set of two or more halftones made by photographic color separations.

Combination Plate—Halftone and line work combined on one plate and etched for both halftone and line depth.

Combination Plates—Color—Plates made by the use of a key plate and color plates, either halftone or line, to be printed in two or more colors.

Complementary Colors—The complement of any color is the combination of the other colors completing the spectrum.

Connected Dot—Halftone dots in negative or plate which are joined together.

Contrast—The quality of an illustration possessing a wide difference in tone values. One in which the highlight and shadow tones are strongly in evidence.

Copper Etching—The act of etching a copper plate. Also an etched copper plate.

Copy—The original, be it photograph, drawing, painting, design, object or anything that is in process of reproduction for printing purposes.

Crop—To cut off an edge or trim.

Cross-Hatch—A series of parallel lines crossed with others at any angle.

Cross-Line Screen—Halftone screen having lines crossing at right

angles as distinguished from straight line screen having no cross-line.

Curved Plate—One that is backed up and curved to suit the cylinder of a rotary press.

Cut—An obsolete synonym for photo-engravings or plates. Originally referred to as wood cuts.

Dead Metal—Excess metal around or within the printing areas of a plate. Also called bearers.

Deep Etch—Sinking or “running down” the open parts of a photo-engraved plate to acquire the necessary printing depth.

Deep Etching—Bites additional to the first bite given line plates or coarse screen halftones.

Detail—Minute or specific subdivisions of an image.

Digging Out—Removing small places in metal plate with hand tools.

Dimension—Width of an image measured horizontally or depth measured vertically.

Dimension Marks—Points indicated on a copy outside the area of the image to be reproduced, between which size of reduction or enlargement is marked.

Direct Halftone—A halftone for which the screen negative is made by direct exposure of the article itself, and not from a photograph or drawing.

Distemper—A form of painting done with body colors mixed with white and a sizing medium, usually a glue size. Commonly used by scenic artists for theatrical work.

Dots (Halftone)—Minute, symmetrical, individual subdivisions of printing surface formed by halftone screen.

Double Print—Prints from two different negatives occupying fixed positions on the same piece of metal but not necessarily superimposed.

Drawing—Finished work of the artist (either by brush, pen or any other medium). It is the copy from which reproduction is made direct. It contains every detail

GLOSSARY OF WORDS AND TERMS

- desired to show in the finished photo-engraving.
- Drop Out**—When the highlight dots of a halftone are etched away they are said to be “dropped out.”
- Drop Out Negatives**—Halftone negatives in which highlight dots are so exposed as to prevent their printing on the metal. When the plate is etched the highlights “drop out” and can be deep etched. Correct name is “Highlight” negative.
- Dry Brush Drawing**—A drawing made with a brush and only slightly moistened India ink, the aim being to secure a vigorous execution of a character between a bold crayon drawing and pen work. A difficult and highly distinctive technique.
- Dry Plate**—Photographic plate on which light-sensitive film is dry.
- Dry Plate Negative**—Term customarily used to denote continuous tone negative as distinguished from halftone negative.
- Duograph**—Two halftone plates at different screen angles made from one monochromatic copy and printed to produce two-tone effect. Key plate printed in dark color, second plate, etched flat, printed in light tint.
- Duotype**—Two halftone plates made from the same negative. One etched for detail (Key plate) the other flat to print in light tint. Unless great care is used in printing, both plates being made from same negative, a decided moire or screen pattern will result. A poor substitute for Duograph.
- Duplicate Plates**—Plates made from the same negative as the original plate. Etched and finished in the same manner.
- Electrotype**—A plate made by electrolytically depositing metal—copper, nickel, etc., on a mold of wax or metal taken from the original plate or (wood cut).
- Electrolytic Etching**—Electrical decomposition of metal unprotected by the resist.
- Eleven Point Metal**—Metal .152" thick. Sometimes called heavy metal.
- Ellipse**—Denoting shape of printing surface of a plate. A regular oval.
- Em**—Printing term denoting the square of the body of type. 12 point ems are exactly one-sixth of an inch (or 12 points) in width and depth. Sometimes erroneously called “Picas.” One PICA is slightly less than 12 points.
- Embossing Plate**—A plate cut or etched below its surface into which the paper is forced for the purpose of raising the image of the printed surface.
- Emulsion**—Trade term for sensitive collodion having silver salts in suspension.
- Enamel**—Carbonized glue or shellac acid resist.
- Enamel**—A sensitized coating flowed or spread on the surface of a metal plate to receive the image by light transference through a line or halftone negative. When developed and burned in, the enamel hardens into an acid resist protecting the image during the etching process.
- Engrave**—To cut, etch or incise a surface.
- Engraver**—Trade term employed to designate the artisans who execute the hand tool work on a plate. (See also Finisher.)
- Engraving**—Executing hand work on a plate; also a broad term for any form of printing plates produced by hand, photo-mechanical or etching process.
- Enlargement**—A reproduction larger than full size of copy.
- Etched Depth**—Distance measured vertically from flat printing surface to bottom of etched area.
- Etching**—Chemical or electrolytic disintegration of metal, also the trade name of a printing plate in which the picture or design in positive or negative form is incised by the action of acid. The process of corrosion or disintegration of metal when subjected to the action of an acid bath.

GLOSSARY OF WORDS AND TERMS

- Etching Ink**—An ink soluble in water and containing ingredients which combine with powdered resin to make an acid resist.
- Etching Machine**—Mechanically operated device to agitate etching acid and to distribute action evenly on face of plate.
- Exposure**—Subjecting a sensitized plate to the action of light. The duration of time of subjection.
- Face**—Denotes film side of negative or printing surface of plate.
- "Fake" Process**—An unfounded and obsolete term for halftones printed in two, three or four superimposed colors, made from monochromatic copy with suitable screen angles, the colors being constructed by the photo-engraver to simulate effect of color separations.
- Film**—A thin body of collodion, gelatine or other substance generally employed as the vehicle for a sensitized photographic preparation. The photographic negative or positive.
- Filter, Color**—Transparent dyed colored substance either dry or liquid, for transmission of specific colors and absorption of others. Used in photography for color separation and for transmission of specific colors from copy to photographic plate.
- Fine Line**—A thin black finishing line enclosing the image on a plate. Also called hairline.
- Fine White Line**—A thin groove, tooled or etched into the printing surface of a plate. Also called hairline white.
- Finish**—Term used to designate treatment of outer edges of plate such as: square finish, hairline finish, vignetted finish, etc.
- Finisher**—The artisan who executes the final re-etching, engraving, tooling or burnishing preparatory to final proofing. Properly termed engraver.
- Finishing**—The final refinement of a printing plate and the removal of minor defects by hand tooling methods.
- Fixing**—Chemical removal of unexposed silver salts from developed photographic plate or print to prevent further action of light thereon.
- Flat**—Trade name for metal or the glass on which a number of halftones or line negatives have been stripped or printed or etched. The appearance of a picture that is lacking in contrast or one possessing a very narrow or limited range of tone values is called flat.
- Flat Etching**—The first period of etching on a halftone plate wherein the entire surface to be etched is submitted to the acid for a sufficient time to acquire the necessary "printing depth."
- Flat Plate**—Etched plate with poor contrast—opposite of Contrast.
- Flat Proof**—Proof made from finished or unfinished plate but without make-ready of any kind.
- Floating**—A term used to express the handling and placing of photographic films when stripping.
- Flush Blocking**—Trimming mounted plate and block flush with printing surface.
- Flush Trimming**—Trimming unmounted plate flush with printing surface.
- Focus**—The point in the camera at which the converging rays of light passing through the lens from the original coincide to form a sharp image.
- Four Color Process Plates**—Same as the three color process with the addition of a gray or black plate.
- Free Silver**—Silver nitrate solution on surface of wet plate.
- Frisket**—A paper mask used to cover up dead metal or bearers when proofing.
- Fuzzy**—The appearance of a proof due to slurred impressions. The appearance of a picture that lacks sharpness. The appearance of a halftone of irregularly etched dots.
- Gallery**—That part of an engraving plant used for making photographic negatives, etc. Its equipment.

GLOSSARY OF WORDS AND TERMS

- Gamboge**—A gum, soluble in water, used for stopping out areas on metal prints preparatory to laying tints.
- Glue Top**—The burned-in enamel or acid resist on a plate.
- Gouache**—French word for a water color painting made with body color, and some kind of size or water-soluble gums.
- Grain Box**—A cabinet enclosing line bitumen dust which, when agitated, and allowed to settle on the face of metal and burned in, forms a granular resist.
- Grained Plate**—A plate etched after having been coated with a granular resist.
- Graver**—Tool for doing engraving on a plate.
- Gray**—A term used to express the appearance of a picture lacking in brilliancy or rendered wholly in middle of low tone value.
- Guide, Color**—A sketch or color indication used when making color plate from uncolored copy.
- Hairline**—The finest line, either black or white, which can be etched or engraved on a relief plate.
- Hairline Finish**—A fine black finish line in contact with and bordering the edges of a square finished halftone.
- Halftone**—A relief photo-engraving, the negative for which has been made by photographing a copy through a halftone screen. Also, the printed impression from a plate so made.
- Halftone Dot**—An individual point of formation in negative or plate, characteristic of the halftone screen.
- Halftone Negative** — Photographic negative made by photographing a copy through a halftone screen.
- Halftone, Outlined**—A halftone with the background outside of the object entirely cut away, leaving a definite edge without shading or vignetting—a silhouette.
- Halftone, Outlined and Vignetted**—A halftone in which part of the background is cut away and part vignetted.
- Halftone Plate**—A relief plate made by a photo-mechanical etching process employing the principle of the halftone screen whereby all gradations of tone values in the copy are reproduced in the plate by variations in the formation and size of minute dots of geometrical arrangement obtained primarily in the negative by the interposition of a cross-ruled screen.
- Halftone Process** — The method practised for production of halftone plates.
- Halftone Screen**—A grating of opaque lines on glass, crossing at right angles, producing transparent square apertures between intersections.
- Halftone Square Plate**—A halftone in which the outside edges are rectangular and parallel; may be with or without single black line border.
- Halftone Tint Negative**—Negative made by photographing one sheet of white paper through halftone screen.
- Halftone Vignetted**—A halftone on which one or more of the edges of the object are shaded from dark tones to pure white.
- Hand Press**—Proofing press operated by hand.
- Hand Work**—Tool work or extra etching, or any work done on copy, negative, print or plate by hand.
- Hard Vignette**—One not softened off to the point of invisibility, but exhibiting a delicate but definite printing edge.
- Highlight**—The light areas of a tone copy. The smaller disconnected dots of a halftone. Abbreviation for highlight halftone.
- Highlight Halftone**—A plate made from a halftone negative wherein the highlight dots have been so exposed and etched that they will not print on the metal.
- Halftonometer**.—A device for measuring the depth between the dots of the printing surface of halftone plates.

GLOSSARY OF WORDS AND TERMS

Image—The picture of the copy shown on the ground glass; or the concrete reproduction of a copy on any medium.

Insert—Term applied to an extra copy, also to negative therefrom when the latter is to be inserted into another negative before plate is printed and etched.

Inserting—The fitting of one negative into another or the assembling of a number into a definite relationship to each other by the accurate cutting and fitting of the photographic films. Usually wet plate films can be thus advantageously handled. Collodion emulsion films can be handled in like manner.

Intaglio—Countersunk or depressed image. Incised lines, instead of raised or in relief.

Intaglio Etching—Etching down the lines or dots in a plate instead of etching down the areas surrounding them. The resist for intaglio etching is printed from a positive instead of a negative.

Intaglio Print or Proof—Proof made from an Intaglio etched plate. The ink being rolled into the etched lines or dots and wiped off of the surface.

Isochromatic—Same as orthochromatic. Photographic emulsion sensitive to blue, green and yellow, but not to red.

Jig-Saw—A narrow thin saw blade, vertically mounted between the ends of two arms which move up and down reciprocally. Used for irregular sawing and for mortising blocked plates.

Joint—The line or point of contact between joined negatives or plates.

Journeyman—Master craftsman who has served full period of apprenticeship.

Key Drawing—Copy composed of guide lines only.

Key Plate—The plate of maximum detail in a color set, to which other colors are registered.

Kill—To cancel, to discard, as to kill a plate.

Laminated Wood—Blocking wood consisting of several thin layers of wood glued together with the grain crossing alternately.

Laying Tints—Trade term for printing Ben Day or similar tints on metal before etching.

Lens—An assembled arrangement of special glass segments ground and fitted together to form a complete unit. Used in photographic processes for the collection, direction and distribution of light rays.

Levy Screen—The halftone screen as developed and manufactured by Max Levy.

Light Absorption—The property of absorbing light or any of its component color waves.

Light Reflection—The property of reflecting light or any of its component color waves.

Line Copy—Any copy suitable for reproduction by a line plate. Any copy composed of lines or dots as distinguished from one composed of tones.

Line Drawing—A brush or pen drawing in which all elements are of full strength of medium used. A drawing free from wash or diluted tones.

Line Engraving—A relief line plate produced from a copy without photographing it through a screen.

Line Etching—The process of etching a line engraving.

Line Negative—A negative made from a line copy and suitable for use in making a line plate. A negative of the same characteristics made from any copy, but without photographing through a halftone screen.

Line Plate—A line engraving.

Lining Beveler—Machine for beveling straight edges of plates with attachment for tooling straight white lines in borders of plates.

Lumiere—Contraction of "Lumiere Autochrome." A photographic plate made by Lumiere Freres for direct color photography.

GLOSSARY OF WORDS AND TERMS

- Machine Etching**—Applications of etching fluid to plate by mechanical means.
- Magazine Standards** — Individual specifications for the making of printing plates to conform to special printing requirements of publishers.
- Make-Ready**—The preparation and application of underlay or overlay for proofing or printing. Term for the sheet with complete underlays and overlays in position.
- Masking**—The operation of protecting or blocking out on a copy proof, plate or metal print a definitely outlined area.
- Mats**—Abbreviation for matrices, papier-mâché or composition, moulds from relief plates or forms.
- McKee Process**—A process in general terms whereby the make-ready is put in the face of the electrotpe plate. In other words, the highlights and shadows are taken care of by the varying heights of the plate on each.
- Metal Base or Blocking on Metal**—Mounting a halftone, a line plate or an electrotpe on metal type high.
- Mezzograph** — A photo-engraving made by photographing through a grain screen called a mezzograph screen.
- Middle Tones**—The various values of a copy ranging between highlights and shadows.
- Milling**—The mechanical operation of supplying a bevel to the edge of a rectangular or straight edged plate or routing away unwanted metal. (See "Beveling.")
- Minimum** — Size of plate, below which, cost of manufacture remains fixed.
- Moire**—A formation of undesired symmetrical patterns produced by conflict between halftone screen and lines or dots of copy. As when making halftone from halftone proof or from steel engraving.
- Monochrome**—One color.
- Mordant**—An acid bath or corrosive liquid employed to etch metal.
- Mortise** — Enclosed aperture cut within area of plate or block into which other printing forms may be inserted.
- Mount**—The base or block on which a plate is fastened to make it type high.
- Nailing Machine**—Mechanical device for nailing plates to blocks.
- Negative**—Reversal of values, the white being rendered black and vice versa. Also contraction of PHOTOGRAPHIC NEGATIVE.
- Negative Inserting**—Combining negatives by inserting.
- Negative Plate**—A line or halftone plate which prints negative to copy, i.e., with reversed values. Such a plate is made by printing from a positive.
- Negative Turning**—Stripping and turning negatives over to reverse them.
- Newstone**—A halftone, 100-line or coarser, etched on zinc, usually for newspaper illustration but often used in commercial work to be printed on cheap or rough papers.
- One Way Screen**—A halftone screen or plate having lines running in one direction only, not crossing.
- Opaking**—Protecting a photographic plate or transparent medium with a thin non-actinic coating through which light cannot penetrate.
- Opaque**—A water-soluble paint used to block out areas on negatives to make them non-transparent.
- Original**—Term applied to copy of any kind.
- Orthochromatic**—Same as Isochromatic. Photographic emulsion sensitive to blue, green and yellow, but not red.
- Outline Finish**—A halftone with the removal of all background surrounding or showing through or within the outline of an illustration.
- Outlined Halftone**—A halftone from which screen surrounding any part of image has been cut away. A silhouette.

GLOSSARY OF WORDS AND TERMS

- Outlining**—Going around a cut-out engraving with a No. 6 tint tool; it is done as a guide for the routers.
- Over Etched**—A plate that has been submitted to the etching process beyond the normal period.
- Overlays**—Part of make-ready always used in printing vignettes.
- Overlay Negatives**—Superimposing one negative upon another to obtain results unattainable by one negative.
- Overlay in Proving**—Built up or cut out sheets used to increase or decrease impressions on specific areas when printing. Placed under tympan sheet **over plate**.
- Painting In**—The protection of definite areas of halftone or line plates by the application of acid resisting ink or varnish spread on with a brush.
- Panchromatic**—Sensitive to all colors.
- Patent Base**—Metal, sectional blocks with means for holding plates for printing. Same as PATENT BLOCKS.
- Pattern**—Term used to describe an engraving which will be used only for making electrotypes or other moulded printing plates.
- Pattern**—The checkered, mottled, moire or watered silk effect produced in halftone reproductions from originals possessing screen or fine parallel ruled lines. Caused by the pattern of the copy crossing or interfering with the lines of the halftone screen.
- Pen Drawing**—Made by pen and India ink, in lines, dots or stipples, being a copy purely of black and white.
- Photo**—Abbreviation for Photograph.
- Photograph**—An image resulting from Photography.
- Photographic Negative**—An image of reversed values, resulting from photographic action of light, all whites being reproduced as blacks and vice versa.
- Photo-Engraving**—An etched relief printing plate, in the making of which one or more negatives or positives have been used to produce the required acid resist.
- Pin-Holes**—Small holes in the negative caused by an over-iodized bath or very old collodion. Small holes in print or plate from any cause.
- Plate**—Any piece of metal bearing in relief or incised into its surface a picture, design or other device from which impressions are to be made by a printing operation.
- Sensitized glass, either wet or dry, used in the camera for photography. Also a printing plate.
- Plate Holder**—Light tight case for holding photographic plate in position on back of camera.
- Plate Thickness**—Backing up a halftone or line plate to the thickness of an electrotpe. (0.152 inch.)
- Polychromatic**—Many colors.
- Positive**—An image of the original object or copy corresponding to same in the scheme of light and shade. An image made by an exposure on a sensitized plate through a negative in contact.
- Powdering**—Application of resin powder to sides of relief areas of plate to protect them during further etching operations.
- Printing**—Making impression with inked plate or form, also the operation of making a photographic print, or print on metal.
- Printing Depth**—The minimum depression in the etched portion of a photo-engraved plate necessary to insure a workable printing quality.
- Progressive Proofs**—A set of proofs of color plates showing each color alone, as well as in combination with each succeeding color in printing rotation.
- Proportion**—The relationship existing between the different dimensions of a single object or copy, or the relationship existing between any dimension of object or copy and the corresponding dimension in enlarged or reduced size.

GLOSSARY OF WORDS AND TERMS

Proving or Proofing—Proving is taking an impression of the plate on paper, after plate has been inked up; a finished proof is one taken by overlay or underlay, a flat proof is taken of plate with all waste metal on.

Press Proof (Cylinder)—Is a proof taken on such a press as the Claybourn, Hacker or the Vandercook. The impression is made by rolling contact of the plate and paper, instead of squeeze contact (like that taken on the Washington Hand Proof Press).

Quadricolor—Four colors.

Quarter Tone—Term used in some localities for coarse screen plates made by enlarging from smaller halftones.

Reducing Glass—A double concave lens for viewing copies in reduced sizes.

Re-Etching—Supplementary etching to reduce areas of printing surfaces so they will print as a lighter tone.

The work following the flat etching of a halftone plate, consisting of staging and further etching of different areas of the plate to reduce the various tone values into proper conformity with the copy.

Register—Correct relative position of two or more colors when printed from color plates.

Register Marks—Guides on plates to aid in obtaining register during manufacture and proofing.

Relief Plate—Any plate for printing purposes in which the negative form of a picture is etched, cut or sunk into the plate resulting in the relief presentation of the picture in its positive form.

Reproduction—The process of duplication of pictures, etc., by photo-engraving methods. The product of the photo-engraving process.

Resist—Protective acid-proof coating covering printing area of plate and leaving parts to be etched exposed.

Retouching—Corrective treatment of negative, positive or copy by means of brush, pencil, pen, air brush or other means.

Reverse Plates—Plates which are negative in tone values to copy.

Rouletting—Indenting printing surface of a plate with a roulette to create or modify tone values.

Router—The machine on which the routing of a plate is accomplished by the high speed revolution of a cutting tool operating in a movable spindle head. Also one who routs.

Routing—A mechanical means of removing the unessential metal or wood from any part of a printing plate, or lowering the surface of such parts that are not intended to be printed.

Saw Tooth Edge—Edge of halftone crossing screen line at angle causing symmetry of dots to break into appearance of teeth of saw.

Scale—A rule of graduated dimensions. A schedule of rates or computations. A table of percentages. A ratio of enlargements or reductions.

Screen—The term used to denote the particular ruled screen to be used for halftone reproduction. Screens are ruled for practical purposes from 50 to 200 lines to an inch. The coarser rulings are used for plates to suit the conditions of newspaper printing, and the finer ones for the higher printing requirements. The numbers between are more generally employed to meet intermediate conditions. The character of the paper and press work, and to a certain extent the nature of the copy, determine the selection of the most suitable screen to be used in each instance.

Screen Angle—The angle at which two or more halftone screens are crossed to avoid a pattern as in color work.

Screening—Stripping a halftone tint negative on a transparent area of another negative.

GLOSSARY OF WORDS AND TERMS

Screened Line Plate—A plate made from pen drawing by imposing a screen before etching for the purpose of producing a tint effect. It has been found convenient to use the word "Skiagraph" to designate the result of stripping a halftone negative over a line negative and printing them on metal.

Set-Up—Negatives whether all line or all halftone or both, stripped in a specified position.

Set-Up Double Print—To place negatives, generally a line and a halftone negative on separate glasses, with register marks on each glass, so that metal printer may photo-print both negatives on same piece of metal in position desired.

Shading Machine—Device for holding and adjusting position of shading films for laying tints on negatives or metal prints.

Shadow—The part of a picture obscured by lack of illumination. The darker areas of any copy.

Sharpness—The clear, well defined appearance of the image or picture.

Shoulder—The projecting ledge on an etched plate created by four-way powdering after the first bite. Any similar projection below printing surface.

Silhouette—A halftone from which screen surrounding any part of image has been cut away or etched away.

Silhouette Finish—A halftone with all background surrounding an illustration of simple contour removed from the plate.

Silver Print—Photographic print on paper which has been sensitized with silver chloride salts.

Size—Dimensions expressed in inches or definite terms on a copy is interpreted as indicating the desired dimensions of the reproduction.

Sketch—Usually is made in a rough, quick way with a pencil, crayon or brush, to suggest the composition or style of a prospective drawing, to be completed later.

A sketch (or "layout") is a preliminary to a drawing, and is rarely, if ever, reproduced direct.

Slug—A hole or tear in negative or print or plate.

Slurred—An impression that is imperfect due to indirect pressure.

Snappy—A term describing a brilliant picture of wide contrasts and wealth of middle tones.

Spotting—Removing black or white spots on plate.

Squared—Designating shape of halftones all four sides of which can be beveled in straight lines.

Square Finish—A halftone with an unbroken screen surface finished in rectangular shape with or without border line.

Staging—Protecting by the application of asphaltum varnish or other resist such area of a plate requiring no further re-etching, leaving those parts of the plate surfaces exposed which require additional treatment.

Stain—Image formed by discoloration on copper or zinc print by short immersion in weak acid or alum bath.

Stain Print—A print on metal from either halftone or line negative immersed in acid for an interval just sufficient to stain the exposed surface. When the print is washed off a distinct image is shown by the contrast between the stained and unstained parts. Stain prints are used as the guide for the laying of the Ben Day or solid tints for color plates.

Stamping Die—A relief plate engraved or cut on brass or zinc for stamping book covers or similar surfaces.

Stereotype—A plate made by casting metal into a matrix, used generally for newspaper and cheap forms of printing.

Stipple—Generally used in a collective sense to designate any arrangement of dots of regular or irregular formation.

Stopping Out—Covering areas on a negative with opaque to prevent light action or on a plate with resist to prevent acid action.

GLOSSARY OF WORDS AND TERMS

Stripping—Removing negative or positive film from glass preparatory to turning and inserting.

Sur-Print—A print from a second negative superimposed in a definite manner upon the print of the first negative.

Tempera—The oldest method of artistic painting. Probably evolved from a primitive method in distemper. True tempera is painted upon canvas, wood or other surfaces prepared with coatings of gesso, a mixture of slaked plaster of Paris, pure dry zinc white and fine whiting (or the whiting alone), with a thin size made of fine acid-free glue. The colors are usually mixed with a medium composed of egg yolk or egg-white, or casein and body white is freely used. Tempera paintings have a mat surface, unless they are varnished, in which case they look like oil paintings.

Three Color Process Plates—Printing plates produced from colored copy, or objects, to reproduce the picture or object in its original colors by a photochemical separation of the primary colors, and etched halftone plates to reproduce each separate color, usually printed in yellow, red and blue.

Three or More Color Halftones—Same as definition of two-color halftone, using three or more etched halftone plates.

Tint—A reduction of a solid color.

Tint Block—A solid plate to be used in printing a light flat color.

Tint Laying—The operation of transferring Ben Day tints to plates, drawings or other mediums.

Tint Plate—An area of screen, stipple, ruling or other patterns of an open nature.

Tooling—Engraving white lines with a graver.

Top—Acid resist on a metal plate preparatory to etching.

Topping Powder—White resin used to create acid resist on an inked albumen print.

Transfer—Ink impression from etched plate used to make a duplicate impression on another plate.

Transparent Proof—Proof on transparent paper.

Trichromatic—Three colors.

Trimming—Tooling off projecting ledge below printing surface of etched plate. Milling sides of blocks.

Two-Color Process Plates—Two halftone plates made at different screen angles from monochromatic or colored copy by the photo-mechanical separation of colors or by etching, to approximately reproduce the copy when the plates are printed in two contrasting colors.

Type-High—0.9186 of an inch. A plate is said to be "Type-High" when it is mounted on wood or metal to the proper height to be used on a printing press.

Undercut—The lateral etching of the lines or dots in a line or halftone plate below the printing surface.

Underlay—Built up or cut out sheets placed under plate to increase or decrease impression on special areas when printing.

Upham Attachment—A flat-bed press with plate cylinder under feed board contacting with impression cylinder.

Plates are curved by a process in which elongation is eliminated.

Velox Print—Name for one of the chloride printing papers made by the Eastman Kodak Co. and sometimes erroneously used as name for similar developing papers.

Vignette—A gradually shaded off edge, from dark to light, as on a photograph or engraving.

A halftone with the background setting blending into an invisible finish. Due to the gradual reduction in the size of the dots of the background as they approach the printing edges.

Wash Drawing—Made by a brush in washes with a single pigment

GLOSSARY OF WORDS AND TERMS

of black or dark color soluble in water, to be reproduced by the halftone process.

Water Color Drawing—Same as above, made in washes with a combination of several colors. Reproduction may be by process color halftone plates or by re-drawing and by combination of halftone with Ben Day line plates.

Wet Plate—Collodionized glass plate sensitized with silver nitrate and exposed while wet.

Wet Printing—A term applied to one color following another immediately in printing color plates, i.e., one impression is made upon another before the ink has time to dry.

Plates should be adapted to this method of printing whenever information is furnished as to such requirements.

Wood Base—Wooden block used for mounting printing plates.

Wood Engraving—A printing plate in which the illustration is photographed or drawn on boxwood and engraved entirely by hand.

Working Drawing—A perfected drawing of a crudely executed idea or preliminary sketch made for the purpose of reproduction from copy unsuitable for reproduction in its original form.

Zinc—Metal used in Etching department. Abbreviation for zinc etching of line plate.

Zinc Etching—A photo-engraved line plate on zinc. Action of acid on zinc.

Zinc Halftone—Halftone plate etched on zinc.

Zinc Print—Photographic acid resist photo printed on zinc.



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